



Postal Registration No. N.E.-771/2006-2008

# THE GAZETTE OF MEGHALAYA

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*Separate paging is given on this part in order that it may be filed as a separate compilation.*

## PART - IX

Advertisements and Notices by Government Offices and Public Service

### NOTICES

#### STANDARD FORM OF APPLICATION

Photo

Dated, \_\_\_\_\_

To

The \_\_\_\_\_  
\_\_\_\_\_

Sir,

I beg to apply for the post of \_\_\_\_\_ and furnish the facts/as below in case of any false statement I am liable to any action Government may deem fit and proper. A Treasury Challan of Rs. \_\_\_\_\_ vide T. V. No. \_\_\_\_\_ is attached herewith.

Signature of Applicant

1. Full name in capital letters with address; if any; Surname first  
(Please do not use any initials)

\_\_\_\_\_  
Surname

2. Date of Birth :

\_\_\_\_\_  
Year Month Date

3. Place of Birth :

\_\_\_\_\_  
Village/Town Police Station District State

4. Father's/Mother's and Husband's (in case of married female)  
(Please do not use initials).

## 5. Personal description :

A. Height

\_\_\_\_\_ M \_\_\_\_\_ Cm.

B. Colour of Eyes

C. Colour of Hair :

D. Visible distinguishing marks (if any)

6. A. Permanent Address in full.

B. Present Address in full.

C. If you have not resided at the above address continuously for the last four years. Please give the other address where you have resided during the period.

From :

To :

Address :

## 7. References :—

Name and address of two responsible persons in your localities who would be prepared to vouch for you.

A.

B.

8. Are you citizen of India? If so, how? (Copy of Citizenship Certificates should be enclosed where necessary).

9. Educational and other qualifications (Please attach copies of Certificates, Mark Sheets etc.)

Sl. No.	Name of Institution and Address	Date of entering	Date of leaving	Examination passed	Division	Subject taken
1.	2	3	4	5	6	7

1.

2.

3.

4.

5.

6.

## 10. Community :

(a) State your religion :

(b) Are you a member of Scheduled Caste/Scheduled Tribe? Answer "Yes" or "No". If "Yes" give particulars supported by a Certificate (Copy to be enclosed).

11. Present occupation, if any :

12. Previous appointment held, if any :

13. Are you a temporary/retrained personnel of temporary Department of the Government of Meghalaya, Answer "Yes" or "No" (If "yes" give particulars).

14. Are you trained in or a member of the National Cadet Corps or Territorial Army? If so, give particulars.

15. Are you married or unmarried?

Signature.

**Note :** Particulars are to be filled in below the column in the space provided.

Nongstoin, the 16th June, 2011.

**No.NDG.2/80/VoL.II/165.**— Application in standard form is invited from the candidates from the citizen of India (as defined in the, article 5-8 of the constitution of India) for the following posts in as stated hereunder:

**1. Assistant Mechanic - 1 (one) post**

- (i) Educational qualification: SSLC passed or its equivalent and should be experienced in repairing of vehicles and Machineries.
- (ii) Scale of Pay :- Rs.7700-190-9030-EB-250-11280-340-15020/-

**2. Driver- 4 (four) posts.**

- (i) Educational Qualification:- Class VI passed and above and should be a holder of a motor Driving licence
- (ii) Scale of Pay :- Rs. 7700-190-9030-EB-250-11280-340-15020/-

**3. Gram Sevika 1 (one) post**

- (i) Educational Qualification :- SSLC passed or its equivalent.
- (ii) Scale of Pay:- Rs. 8300-210-9770-EB-270-12200-370-16270/-

**4. Helper at KTCE Mairang (Female) 1 (one) post.**

- (i) Educational Qualification:- Class VIII passed and above with certificate holder for knitting, Tailoring and Embroidery and 2 or 3 years experience in the line.
- (ii) Scale of pay Rs:- 6500-160-7620-EB-210-9510-290-12700/-

**5. Mechanic - 1 (one) Post.**

- (i) Educational Qualification: - SSLC passed or its equivalent with certificate passed in Mechanical trade from ITI.
- (ii) Scale of pay :- Rs. 8300-210-9770-EB-270-12200-370-16270/-

**6. Boatman :- 1 (one) post.**

- (i) Educational Qualification: - Class VI passed and should have good knowledge of ferrying of boat,
- (ii) Scale of pay :- Rs.6500-160-7620-EB-210-9510-290-12700/-

**7. Milk Collector in Chilling plant Nongstoin :-1 (one) Post**

- (i) Educational Qualification :- HSSLC passed with computer knowledge.
- (ii) Scale of pay :- Rs. 8300-210-9770-EB-270-12200-370-16270/-

**8. Revenue Enforcement Checker (Male) 1 (one) Post.**

- (i) Educational Qualification : - SSLC passed or its equivalent
- (ii) Scale of Pay :- Rs.8300-210-9770-EB-270-12200-370-16270/-

**Age limit:** - 18-27 years as on 1st March, 2011, Upper age limit is relaxable by 5 years in case of SC/ST candidates. No. age limit for those who are already in Govt. service provided they entered service within the prescribe age limit.

The reservation of vacancies is as per the existing rules of the Government of Meghalaya.

Filled up applications duly supported by educational certificates/Mark sheets and testimonials (Photostat copies duly attested) should be accompanied by Treasury receipts of ₹.3/- (₹.1.50/- in case of SC/ST candidates). Applications fees are to be deposited into the Treasury under the Head of Account '0051-Public Service Commission (i) Examination fees (ii) Receipts of other Departments" will be received in the office of the District Selection Committee, West Khasi Hills District, Nongstoin. No application will be received after the due date. Incomplete applications are likely to be rejected.

The Last date for submission of application form is 29th July, 2011.

Candidates should appear for the interview at their own expenses. Candidates already in Government service and in service of statutory bodies should apply through proper channel.

Note:- The Nos. of vacancies specified against each category of post is as available at present.

**V. A. HYNNIEWTA,**  
Secretary,  
District Selection Committee,  
West Khasi Hills District,  
Nongstoin.

Shillong, the 21st June, 2011

**No.HSM/NS/6/2008/3854-66.**— Application in prescribed form for 3½ years course in General Nursing and Midwifery for the year 2011-2012 are hereby invited and will be received by the Office of the undersigned till 3:00 P.M. on 12th July, 2011.

1. Male and Female unmarried candidates who are indigenous inhabitants or permanent resident of the State and passed the **10+2 level examination with 45 % aggregate marks** from recognized University Board or Authority are eligible to apply. Preference will be given to Science Candidate.
2. **Age:-** Eligible application for those who are not below 17 years or above 22 years as on 31st August, 2011.
3. Candidates are required to appear before Screening Committee in Civil Hospital, Shillong and Civil Hospital, Tura for verification of Original copies of 10+2 Mark Sheet, Certificate, ST/SC, Character Certificate from the Institution last attended and SSLC Mark Sheet and Admit Card. The Applicant will also be Medical Examined at the same time and place for determination of the Medical Fitness. Applicants who are medically unfit during Medical examination will be dropped from the list of candidature with no further consideration.
4. To minimize the delay and hardship to the Candidates, screening will be done in phases. In the 1st phase the number of Candidates (will be arrange in order of merit) will approximately by two/three times the number of seats available category-wise. The names of such candidates will be placed in the notice board of the Directorate of Health Services (MI), Shillong and Civil Hospital, Shillong/Tura well in advance of the screening date indicated.
5. **NO INDIVIDUAL NOTICE WILL BE SERVED** to any individual applicants for appearing before the Screening Committee. All applicants are requested to note the date and time fixed and to report to Civil Hospital, Shillong/Tura accordingly. Any candidate who fails to appear before the Screening Committee will automatically lose his/her right for further consideration of candidature and the name of such Candidate will be dropped from the list of Candidates,
6. Application forms may be obtained from the Director of Health Services (MI) Meghalaya, Shillong/ Office of the Joint Director, Health Services, Tura/only complete Application forms which are completed

will be received in the Office of the Directorate of Health Services (MI) at Shillong and Office of the Joint Director, Health Services, Tura.

7. Application which does not fulfill the requirement as per Advertisement will be rejected. No application will be received after 3:00 P.M. of 12th July, 2011.
8. The list of selected candidates will be displayed on the NOTICE BOARD OF DIRECTORATE OF HEALTH SERVICES, (MI), SHILLONG, CIVIL HOSPITAL, SHILLONG/TURA. No individual intimation will be served on any candidate selected.
9. Selected Candidates are to report immediately to Deputy Director Nursing, Directorate of Health Services (MI), personally and to submit their letter of acceptance and to collect their letter of nomination and further instruction as the case may be.
10. Selected Candidates who fails to report accordingly to the fixed dates which will be notified in the NOTICE BOARD OF DIRECTORATE OF HEALTH SERVICES (MI), SHILLONG, CIVIL HOSPITAL, SHILLONG/TURA will automatically lose their right to nomination and the next eligible candidate will be nominated.
11. Selection of Candidates, who are otherwise medically fit and eligible will be made purely on the basis of merit, determined by the aggregate percentage of marks obtained at the qualifying examination, and subject to reservation policy of the State Government applicable in this regard.
12. (i) The Department reserved the right to give weightage to Science Stream Candidates in view of the nature of the course and work, (ii) 4 (four) seats for Males are reserved **subject to non-availability of them to that number on the merit list.**
13. Screening of Candidates will be taken up on 3rd and 4th August, 2011 at Civil Hospital, Shillong and Civil Hospital, Tura at 10.00 A.M.

Director of Health Services (MI),  
Meghalaya, Shillong.

Shillong, the 8th June, 2011

**AFFIDAVIT**

I, Ex No. 4363026 FNK Dotashon Marboh son of Shri Budmon Nongrum Resident of Nongrah, Shillong hereby states that due to bonafide mistake in the army service record my name was wrongly recorded as Datashan Marboh instead of Dotashon Marboh vide an affidavit sworn before the 1st Class Magistrate Shillong, dated 8th June, 2011. Henceforth I shall be known as Dotashon Marboh for all purposes and to all concerned.

**DOTASHON MARBOH,**  
Nongrah P.O. Rynjah, Shillong,  
East Khasi Hills Meghalaya.

Shillong, the 22nd June, 2011.

### SHORT NOTICE INVITING TENDER

**No.MS/97-2K10-106/44.**—Sealed Tender affixing Non-refundable Court Fee Stamp of ₹.25/- (Rupees twenty five) only is invited from interested Persons/Firms/Dealers for disposal of the defective Printers, UPS, Fax Machine etc. as shown in ANNEXURE 'A' on as is where is basis. Tender will be received by the undersigned up to 13:00 hrs on 18th July, 2011 and will be opened on the same day at 15:00 hrs at Police Headquarters, Director General of Police, Meghalaya, Shillong in presence of the Tenderers or Representatives if any.

#### Terms and Conditions

1. Tender should be quoted separately for each item to be accompanied by Earnest Money. Earnest Money should be either in the Form of (i) Deposit at call (ii) National Saving Certificate or (iii) Fixed Deposit Receipt duly pledged in favour of the Assistant of Police (A), Meghalaya, Shillong.
2. Rate quoted for each item in Tender should be written clearly both in figures and in words any over writing should be duly attested.
3. Tenders should be addressed to the undersigned by designation, sealed envelop containing the Tender must be superscribed by the Words "Tender for purchase of defective Items" and be sent by registered post or Deposited in the Tender Box in the office of the Director General of Police, Meghalaya, Shillong.
4. The following documents should be attached with the Tender, Tender received without the required documents will be summarily rejected.
  - (a) Attested copy of Photograph of the Tenderer.
  - (b) Earnest Money 10% of the bid Money.
  - (c) Up-to-date trading License in terms of KHADC Regulation Act to whom ever applicable.
5. The intending Tenderers may inspect the items as shown in ANNEXURE-'A' at the location as indicated in any working days from 10:00 hrs to 16:00 hrs.
6. The successful Tenderers would be intimated and a letter of acceptance will be issued by the undersigned.
7. The accepted price in full will have to be deposited by the successful Tenderers and the item removed at his/their own cost within the date fixed for the purpose by the Department.
8. The undersigned will not be held responsible for any loss or damage of the defective items, if any, if they are not removed within the specific date.
9. The Earnest Money of the successful Tenderer shall be forfeited to Government if he fails to deposit the accepted price and lift the items within the date fixed for the purpose
10. The Earnest Money of the unsuccessful Tenderer shall be released after the reward of the Tender to the successful Tenderers.

**J. G. MOMIN,**

Assistant. Inspector General of Police (A),  
Meghalaya, Shillong.

**ANNEXURE-'A'**

Sl No.	Name of items	Location of the Defective items/Equipments	Upset Price
1	Dot Matrix Printer Wep HQ 1070 + DX SL No H16 F 049587	Kept at Room No.105 PHQ for condemnation	
2	Color Laser Jet Printer 00 SL No.JPHH B 00 577	- Do -	
3	IBM Monitor E 54 Model No.6331-4 CE SL. No.23 CZY D3	- Do -	
4	Printer HP Desk Jet 5550 SL. No. MY 35RIS 37R	- Do -	
5	Fax Machines Fax Centre 170 SL. No.PR9-004502 Product Code PR9	- Do -	
6	CPU IBM Net Vista SL.No. ZJIM4M37T431	- Do -	
7	UPS AVR PRO. SL. No. BB0151014970	- Do -	
8	UPS UMAX SL No.14-710-81024	- Do -	
9	UPS DELITE SL.No.050-071110-0973	- Do -	
10	UPS EL NOVA T 640 SL. No.T64080714181	- Do -	
11	UPS ELENT SL. No.2006-01-328M	- Do -	
12	UPS UMAX SL No.1471080340	- Do -	
13	UPS ELENT SL.No2006-01-531M	- Do -	
14	UPS AVR PR) SL. No.BB0206015214	- Do -	
15	UPS ELENT SL. No.2005-12-166	- DO -	
16	UPS Perfect Sl. No.NIL	- Do -	

Shillong, the 23rd June, 2011.

**SHORT NOTICE INVITING TENDER**

**No.T/CS/10/2011-12/3244-55.**—Sealed tenders to be drawn in F-2 Form duly affixed with court fee stamp of **₹.200.00 (Rupees two hundred)** only (non-refundable) are invited on behalf of the Governor of Meghalaya from the registered P.W.D. (Roads) contractors Class-III of Shillong Centrai Division, Shillong; contractors Class-II of National Highway Circle. Shillong and Class I of the State of Meghalaya for the following work. Tenders will be received in the office of the undersigned upto **3:00 P.M.** on the 15th July, 2011 and opened on the same date and hours. If the last date of selling or receiving of tenders happens to be declared a holiday or otherwise, the next working day will be the last date of selling or receiving of tenders as the case may be.

1. **Name of work** :- **Construction of a link road from Laitumkhrah Main Road by the side of Ram Krishna Mission.**
2. **Job No.** :- **PW/WR/2010-11/98**
3. **Amount** :- **₹.16,00,000.00 (Rupees Sixteen lakh) only. (In Groups).**
4. **Time of completion:-12 (twelve) months.**
5. Contractors intending to purchase the tender document may do so @₹.150.00 (Rupees one hundred and fifty) only per set (non-refundable) on the 13th and 14th July, 2011 during office hours and obtain valid receipt thereof. The Receipt is to be enclosed along with the tender document without which, no tender will be accepted by the undersigned.
6. Tenderers are to enclose a valid copy of the **Registration Certificate** along with their tender to justify their registration.
7. Tenderers are to give an undertaking along with their tender that the work when allotted will be executed by them only.
8. Non-tribal contractors are requested to enclose along with the tender document their valid trading license otherwise their tender will be rejected.
9. **Cost of Stock Materials and hire charge of Machinery and T&P** issued to the contractor shall be recovered from the bills as per current issue rate of the Division.
10. **Forest Royalty** at current prevailing rates including any other taxes levied by the Government in the State of Meghalaya, from time to time will be recovered from the bills.
11. **Meghalaya Value Added Tax on “Works Contract”** at current prevailing rates levied by the Government from time to time shall be recovered from the bills.
12. Detailed particulars may be seen in the office of the undersigned on all working days during office hours.

**M. MARBANIANG,**

Executive Engineer, P.W.D.(Roads),  
Shillong Central Division, Shillong.



The 28th June, 2011.

ADVERTISEMENT FOR FEMALE HEALTH WORKER (A.N.M.)  
TRAINING COURSE SESSION 2011-2012.

**No.HSM/NS/1/07/4447** - Application in plain papers for 18th months course for Female Health Workers are hereby invited and will be received by the office of the undersigned upto 3:00 P.M in 19th July, 2011. Only Female Unmarried Candidates who are indigenous inhabitants or permanent resident of the State and who have Passed SSLC level examination from the recognized Board with 45% Aggregate Marks SSLC are eligible to apply.

1. Applicant should not be less than 17 years or above 35 years as on 31st August 2011.
2. First 100 candidates from the Garo List, first 100 from the Khasi and Jaintia List and first 50 candidates from others as per Merit List will be called for Screening Committee. Applicants are required to appear before a Screening Committee in Ganesh Das Hospital in respect of Khasi and Jaintia and for the applicants belonging to Garo Hills Screening will be held in Tura Civil Hospital, West Garo Hills for verification of Original Copies of Certificate and Medical Fitness Examination on the 11th and 12th August, 2011 at 10.00 A.M.
3. No Notice will be served on any applicants for appearing before the screening Board. All applicants are required to note the date and time fixed. Application received later than 19th July, 2011 will not be considered under any circumstances.
4. Any applicant who fails to appear as above will also automatically lose her right for further consideration and the name of such applicants will be dropped from the list of candidates.
5. Candidates are required to submit their application in plain paper with the following particulars.

**Name in Block Letter Present Address**

**Age as on**

**Name of the Father/Mother/  
Guardian with permanent Address**

**Schedule Tribe Certificates**

**Evidence of Age (SSLC)/Equivalent Admit Card**

**Mark Sheet of Examination Passed (SSLC) only**

**Character Certificate Aggregate percentage of Marks**

6. The list of the Selected Candidate and Waiting List will be published in the Notice Board of Directorate of Health Services (MI), Shillong and Print Media. No individual intimation will be served to any applicant.
7. Selected applicant are required to report to Deputy Director of Nursing Directorate of Health Services (MI), Shillong, personally and submit their letter of acceptance and to collect their letter of Nomination and further instruction as the case may be.
8. Any selected applicants who fails to report according to the fixed date will automatically lose her right to nomination and the next eligible candidates from the waiting list be nominated.
9. Further note that Government will have no obligation to employ the passed out trainees. They are free to volunteer to undergo training for self-employment in Non-Government Institution. However, whenever posts are available their employment will be considered following usual procedure.

Director of Health Services,  
(Medl. & Inst.),  
Meghalaya, Shillong

Tura, the 21st June, 2011

**No.ACE-II/PHE/GH/TB-69/96.—** Sealed tender affixing non-refundable Court Fee stamps as applicable purchased in Meghalaya are hereby invited from Company Authorized Dealer/Registered Firms/Class-I (one) Contractors and Suppliers of Public Health Engineering Department for the under mentioned work and shall be received by the undersigned upto 3:00 PM on 25th July, 2011.

Tender received shall be opened at **3:30 PM** on the same date, time and place in presence of the tenderers or their authorized agents who like to be present.

Detailed specifications, terms and conditions may be obtained from the office of the undersigned on any working days upto 22nd July, 2011 with an application and on payment of ₹.1500.00 (Rupees one thousand five hundred) only in cash.

Group No.	Name of Work	No.of Set	Court Fee Stamp	Earnest Money	Remarks
1.	Supply, Installation, Testing and Commissioning of Electrically Operated Centrifugal Pump Set with Motor and all Accessories complete for Tura Phase-II W.S.S. (Group - I).	1 Set	₹.1500.00	2% of the quoted amount.	

The above scope of work(s) is/are indicative only. The detailed scope of work and the terms and conditions have been specified in the detailed tender notice.

#### DETAILED SPECIFICATION

**NAME OF WORK :- SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ELECTRICALLY OPERATED CENTRIFUGAL PUMP SET WITH MOTOR AND ALL ACCESSORIES COMPLETE FOR TURA PHASE-II W.S.S. (Grcup-I)**

**APPROXIMATE QUANTITY :- 1 Set.**

#### TECHNICAL SPECIFICATION (PUMP AND MOTOR)

##### (I) CENTRIFUGAL PUMP SET

- 1) Horizontal Centrifugal Water Pump of Cast Iron construction complete with Motor and base plate. Set of suction and delivery Valve and Non-return Valves.
- 2) Burden type pressure gauge with isolation valve and fittings of pump delivery.
- 3) Pump and Motors shall be installed as per Manufacturers recommendations. Pump set shall preferably be Factory aligned. Whenever required necessary site alignment shall be done by competent person.
- 4) The tenderer shall have to submit the performance curve and leaflet On completion of entire installation pump shall be tested for discharge and BHP as per relevant code.
- 5) The offer for pumps shall be limited to KIRLOSKAR make only.

**(II) MOTOR :- SQUIRREL CAGE INDUCTION MOTOR :-** Motor shall be of most efficient and reputed Make. The motor provided shall confirm to IS:- 325 in General. The motor shall be squirrel cage induction motor rated for operation at 415 volts. 3 Phase. 50 H. and A.C. Supply. The motor shall be totally enclosed, fan coiled with enclosures confirming to IP-55,. The HP and speed of the Motor shall match that of the driven pump and the motor shall be suitable for line starting or Star Delta starting and provided with Class-B insulation. Details of pump, motor and materials, specification shall be furnished by the tenderer in the following matter.

#### A. PUMP:-

1. Type of Pump and Make : .....
2. Model Number : .....

- |                                  |   |                              |
|----------------------------------|---|------------------------------|
| 3. Unit Offered                  | : | .....Numbers.                |
| 4. Minimum Discharge             | : | ..... LPS (Litre per Second) |
| 5. Total Head                    | : | ..... Meter                  |
| 6. Suction Pipe Size             | : | ..... Milli Meter            |
| 7. Power rating                  | : | ..... Horse Power            |
| 8. Size                          | : | ..... Milli Meter            |
| 9. Recommended Prime Rating      | : | ..... Kilo watt              |
| 10. Pump Input                   | : | ..... Kilo watt              |
| 11. Delivery Pipe Size           | : | ..... Milli Meter.           |
| 12. Power at Shaft               | : | ..... Kilo watt              |
| 13. Required NPSH                | : | .....                        |
| 14. Speed                        | : | ..... RPM                    |
| 15. Materials of construction    | : | .....                        |
| A. Impeller                      | : | .....                        |
| B. Casing                        | : | .....                        |
| C. Shaft                         | : | .....                        |
| 16. Sealing arrangement          | : | .....                        |
| 17. Weight of Pump               | : | .....                        |
| 18. Foot valve for priming       | : | .....                        |
| 19. Special Instruction (if any) | : | .....                        |

**B. MOTOR:**

- |                          |   |             |
|--------------------------|---|-------------|
| 1. TYPE/Frame Size       | : | .....       |
| 2. Make                  | : | .....       |
| 3. Protective enclosures | : | .....       |
| 4. Motor rating          | : | ..... KW/HP |
| 5. Class of Insulation   | : | .....       |
| 6. Operating Speed       | : | ..... RPM   |

**C. STAR DELTA STARTER:-** The Raw water Pump and motor Shall be supplied with suitable Star Delta Starter L & T/CUTLER HAMMER/SIEMENS Make of push delta button operated air break fully automatic. Star Delta hand resetting type, three magnetic over load release with oil dash pot time lags inherent under voltage release, automatic change over timer, cables suitable for approximate motor rating etc.

**D. CONTROL PANEL BOARD:-** L & T Control Panel Board, self supporting floor mounted dust and vermin proof fabricated out of 16 S.W.G.M.S. sheet and M.S. angle frame only, painted in grey over 2 coats of Red Oxide and anticorrosive paint with front panel fitted with flush type equipments and operating devices with provision for fixing up the supply meter with locking arrangement independently for indoor with necessary wiring and connection with copper wire considering of :

**IN-COMING**

- |  |    |
|--|----|
| a) Required TPN Switch with fuse (HRC) | :- |
| b) Voltmeter                           | :- |
| c) Sliding Lock Fuse                   | :- |

- |    |                     |    |
|----|---------------------|----|
| d) | Volt-meter-Selector | :- |
| e) | Pilot Lamps         | :- |
| f) | Bus-Bar             | :- |

**OUT-GOING**

- |    |   |    |
|----|---|----|
| a) | Single phasing preventor with reverse rotation protection | :- |
| b) | Ammeter   | :- |
| c) | Contactor for Capacitor                                   | :- |
| d) | Push Button for Capacitor                                 | :- |
| e) | ON/OFF Switch for capacitor with Kit-Kat                  | :- |
| f) | Pilot Lamp  | :- |
| g) | Capacitor for appropriate rating                          | :- |
| h) | Provision for Star-Delta Starting (as detailed above).    | :- |

**TERMS AND CONDITIONS**

1. The offer should be made with complete details such as Model, Make, Rating specification of Pump and Motor and design calculations.
2. The rate should be quoted F.O.R. destination i.e place of Installation. The tenderers are requested to inspect the site before submitting the tenders.
3. No charge of packing, forwarding, handling etc. shall be paid extra.
4. Supply, Installation should be completed within 120 (one hundred twenty) days from the date of issue of work order. Failure to supply and install of pump and motor within stipulated time at his own quoted rate will lead to cancellation of Registration and penalty which may please be noted 75% of the payment shall be made on delivery and balance 25% within 3 (three) month after successful installation, testing and commissioning.
5. Supply should cover a guarantee for a period not less than 12(twelve) months against any fault or manufacturing defects etc. and if found defective, the supplier shall be bound to replace the same free of cost.
6. Necessary test certificate and leaflet/literature of the pump set should be submitted along with the Pump Set.
7. All Electrical works should be done by the licensed Electrical contractor of Govt. of Meghalaya.
8. Tenderers should calculate total head considering loss of head due to friction from William Hazen Graph or any other formula with static head.
9. The undersigned reserves the right to reject the lowest or any tender without assigning any reason thereof.
10. The rate quoted should be inclusive of all taxes and surcharges. Any tenderer quoting rate exclusive of taxes will lead to instant rejection of tender.
11. Training for 2 (two) departmental personnel for handling and maintenance at the site of work for a period not exceeding 7 (seven) days at the time of installation of pump and motor should be arranged free of cost.

**NOTE:-**

1. FIRM/CONTRACTOR SHALL HAVE TO SUBMIT THE TEST CERTIFICATE AND MANUFACTURER'S GUARANTEE CERTIFICATE TO THE CONCERNED EXECUTIVE ENGINEER AT THE TIME OF DELIVERY OF PUMP AND MOTOR.
2. THE SUPPLY OF PUMP AND MOTOR SHOULD COVER A GUARANTEE FOR A PERIOD OF NOT LESS THAN 12(TWELVE) MONTHS AGAINST ANY FAULT ON MANUFACTURING DEFECT. IF DETECTED THE CONTRACTOR/FIRM SHALL BE BOUND TO REPLACE THE SAME FREE OF COST.
3. TAXES AS APPLICABLE WILL BE DEDUCTED FROM THE BILL.

**DUTY REQUIREMENT FOR CENTRIFUGAL PUMP SET:**

<b><u>NAME OF SCHEME</u></b>	<b><u>:-</u></b>	<b><u>TURA PHASE-II W.S.S.</u></b>
1.	Total Head	: 310 Metre
2.	Length of pumping main	: 6656.00 Metre
3.	Size of the pumping main(Delivery Pipe)	: 400 mm dia M/S Pipes
4.	Discharge required (Rate of flow)	: 65 Lps.
5.	Hours of Pumping	: 24 Hours
6.	Make	: Kirloskar
7.	Pump type	: MLA 8 STG
8.	Power	: 400 HP
9.	Size (Inlet/Outlet)	: 150mm x 175mm
10.	Speed	: 1475 RPM
11.	Pump Input	: 261.90 KW
12.	Recommended Prime Rating	: 300 KW
13.	Imp. Mat/Dia	: BR/376 mm

**K. WAR,**  
Additional Chief Engineer, PHE,  
Zone-II, Garo Hills, Tura.

Tura, the 21st June, 2011

**No.ACE-II/PHE/GH/TB-69/97.**— Sealed tender affixing non-refundable Court Fee stamps as applicable purchased in Meghalaya are hereby invited from Company Authorized Dealer/Registered Firms/Class-I (one) Contractors and Suppliers of Public Health Engineering Department for the under mentioned work and shall be received by the undersigned upto 3:00 PM of 25th July, 2011.

Tender received shall be opened at **3:30 PM** on the same date, time and place in presence of the tenderers or their authorized agents who like to be present.

Detailed specifications, terms and conditions may be obtained from the office of the undersigned on any working days upto 22nd July, 2011 with an application and on payment of ₹.1500.00 (Rupees one thousand five hundred) only in cash.

Group No.	Name of Work	No.of Set	Court Fee Stamp	Earnest Money	Remarks
1.	Supply, Installation, Testing and Commissioning of Electrically Operated Centrifugal Pump Set with Motor and all Accessories complete for Tura Phase-II W.S.S. (Group - II).	1 Set	₹.1500.00	2% of the quoted amount.	

The above scope of work(s) is/are indicative only. The detailed scope of work and the terms and conditions have been specified in the detailed tender notice.

#### DETAILED SPECIFICATION

**NAME OF WORK :- SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ELECTRICALLY OPERATED CENTRIFUGAL PUMP SET WITH MOTOR AND ALL ACCESSORIES COMPLETE FOR TURA PHASE-II W.S.S. (Group-II)**

**APPROXIMATE QUANTITY :- 1 Set.**

#### TECHNICAL SPECIFICATION (PUMP AND MOTOR) (I) CENTRIFUGAL PUMP SET

- 1) Horizontal Centrifugal Water Pump of Cast Iron construction complete with Motor and base plate. Set of suction and delivery Valve and Non-return Valves.
- 2) Burden type pressure gauge with isolation valve and fittings of pump delivery.
- 3) Pump and Motors shall be installed as per Manufacturers recommendations. Pump set shall preferably be Factory aligned. Whenever required necessary site alignment shall be done by competent person.
- 4) The tenderer shall have to submit the performance curve and leaflet On completion of entire installation pump shall be tested for discharge and BHP as per relevant code.
- 5) The offer for pumps shall be limited to KIRLOSKAR make only.

**(II) MOTOR :- SQUIRREL CAGE INDUCTION MOTOR :-** Motor shall be of most efficient and reputed Make. The motor provided shall conform to IS:- 325 in General. The motor shall be squirrel cage induction motor rated for operation at 415 volts. 3 Phase. 50 H. and A.C. Supply. The motor shall be totally enclosed, fan cooled with enclosures confirming to IP-55,. The HP and speed of the Motor shall match that of the driven pump and the motor shall be suitable for line starting or Star Delta starting and provided with Class-B insulation. Details of pump, motor and materials, specification shall be furnished by the tenderer in the following matter.

#### A. PUMP:-

1. Type of Pump and Make : .....
2. Model Number : .....

- |                                  |   |                              |
|----------------------------------|---|------------------------------|
| 3. Unit Offered                  | : | .....Numbers.                |
| 4. Minimum Discharge             | : | ..... LPS (Litre per Second) |
| 5. Total Head                    | : | ..... Meter                  |
| 6. Suction Pipe Size             | : | ..... Milli Meter            |
| 7. Power rating                  | : | ..... Horse Power            |
| 8. Size                          | : | ..... Milli Meter            |
| 9. Recommended Prime Rating      | : | ..... Kilo watt              |
| 10. Pump Input                   | : | ..... Kilo watt              |
| 11. Delivery Pipe Size           | : | ..... Milli Meter.           |
| 12. Power at Shaft               | : | ..... Kilo watt              |
| 13. Required NPSH                | : | .....                        |
| 14. Speed                        | : | ..... RPM                    |
| 15. Materials of construction    | : | .....                        |
| A. Impeller                      | : | .....                        |
| B. Casing                        | : | .....                        |
| C. Shaft                         | : | .....                        |
| 16. Sealing arrangement          | : | .....                        |
| 17. Weight of Pump               | : | .....                        |
| 18. Foot valve for priming       | : | .....                        |
| 19. Special Instruction (if any) | : | .....                        |

**B. MOTOR:**

- |                          |   |            |
|--------------------------|---|------------|
| 1. TYPE/Frame Size       | : | .....      |
| 2. Make                  | : | .....      |
| 3. Protective enclosures | : | .....      |
| 4. Motor rating          | : | .....KW/HP |
| 5. Class of Insulation   | : | .....      |
| 6. Operating Speed       | : | ..... RPM  |

**C STAR DELTA STARTER:-** The Raw water Pump and motor Shall be supplied with suitable Star Delta Starter L & T/CUTLER HAMMER/SIEMENS Make of push delta button operated air break fully automatic. Star Delta hand resetting type, three magnetic over load release with oil dash pot time lags inherent under voltage release, automatic change over timer, cables suitable for approximate motor rating etc.

**D. CONTROL PANEL BOARD:-** L & T Control Panel Board, self supporting floor mounted dust and vermin proof fabricated out of 16 S.W.G.M.S. sheet and M.S. angle frame only, painted in grey over 2 coats of Red Oxide and anticorrosive paint with front panel fitted with flush type equipments and operating devices with provision for fixing up the supply meter with locking arrangement independently for indoor with necessary wiring and connection with copper wire considering of :

**IN-COMING**

- |  |    |
|--|----|
| a) Required TPN Switch with fuse (HRC) | :- |
| b) Voltmeter                           | :- |

- |    |                     |    |
|----|---------------------|----|
| c) | Sliding Lock Fuse   | :- |
| d) | Volt-meter-Selector | :- |
| e) | Pilot Lamps         | :- |
| f) | Bus-Bar             | :- |

**OUT-GOING**

- |    |   |    |
|----|---|----|
| a) | Single phasing preventor with reverse rotation protection | :- |
| b) | Ammeter   | :- |
| c) | Contactors for Capacitor                                  | :- |
| d) | Push Button for Capacitor                                 | :- |
| e) | ON/OFF Switch for capacitor with Kit-Kat                  | :- |
| f) | Pilot Lamp  | :- |
| g) | Capacitor for appropriate rating                          | :- |
| h) | Provision for Star-Delta Starting (as detailed above).    | :- |

**TERMS AND CONDITIONS**

1. The offer should be made with complete details such as Model, Make, Rating specification of Pump and Motor and design calculations.
2. The rate should be quoted F.O.R. destination i.e place of Installation. The tenderers are requested to inspect the site before submitting the tenders.
3. No charge of packing, forwarding, handling etc. shall be paid extra.
4. Supply, Installation should be completed within 120 (one hundred twenty) days from the date of issue of work order. Failure to supply and install of pump and motor within stipulated time at his own quoted rate will lead to cancellation of Registration and penalty which may please be noted 75% of the payment shall be made on delivery and balance 25% within 3 (three) month after successful installation, testing and commissioning.
5. Supply should cover a guarantee for a period not less than 12(twelve) months against any fault or manufacturing defects etc. and if found defective, the supplier shall be bound to replace the same free of cost.
6. Necessary test certificate and leaflet/literature of the pump set should be submitted along with the Pump Set.
7. All Electrical works should be done by the licensed Electrical contractor of Govt. of Meghalaya.
8. Tenderers should calculate total head considering loss of head due to friction from William Hazen Graph or any other formula with static head.
9. The undersigned reserves the right to reject the lowest or any tender without assigning any reason thereof.
10. The rate quoted should be inclusive of all taxes and surcharges. Any tenderer quoting rate exclusive of taxes will lead to instant rejection of tender.
11. Training for 2 (two) departmental personnel for handling and maintenance at the site of work for a period not exceeding 7 (seven) days at the time of installation of pump and motor should be arranged free of cost.



**NOTE:-**

1. FIRM/CONTRACTOR SHALL HAVE TO SUBMIT THE TEST CERTIFICATE AND MANUFACTURER'S GUARANTEE CERTIFICATE TO THE CONCERNED EXECUTIVE ENGINEER AT THE TIME OF DELIVERY OF PUMP AND MOTOR.
2. THE SUPPLY OF PUMP AND MOTOR SHOULD COVER A GUARANTEE FOR A PERIOD OF NOT LESS THAN 12(TWELVE) MONTHS AGAINST ANY FAULT ON MANUFACTURING DEFECT. IF DETECTED THE CONTRACTOR/FIRM SHALL BE BOUND TO REPLACE THE SAME FREE OF COST.
3. TAXES AS APPLICABLE WILL BE DEDUCTED FROM THE BILL.

**DUTY REQUIREMENT FOR CENTRIFUGAL PUMP SET:****NAME OF SCHEME:-****TURA PHASE-II W.S.S.**

1.	Total Head	:	310 Metre
2.	Length of pumping main	:	6656.00 Metre
3.	Size of the pumping main(Delivery Pipe)	:	400 mm dia M/S Pipes
4.	Discharge required (Rate of flow)	:	65 Lps.
5.	Hours of Pumping	:	24 Hours
6.	Make	:	Kirloskar
7.	Pump type	:	MLA 8 STG
8.	Power	:	400 HP
9.	Size (Inlet/Outlet)	:	150mm x 175mm
10.	Speed	:	1475 RPM
11.	Pump Input	:	261.90 KW
12.	Recommended Prime Rating	:	300 KW
13.	Imp. Mat/Dia	:	BR/376 mm

**K. WAR,**  
Additional Chief Engineer, PHE,  
Zone-II, Garo Hills, Tura.

Tura, the 21st June, 2011

**No.ACE-II/PHE/GH/TB-69/98.**— Sealed tender affixing non-refundable Court Fee stamps as applicable purchased in Meghalaya are hereby invited from Company Authorized Dealer/Registered Firms/Class-I (one) Contractors and Suppliers of Public Health Engineering Department for the under mentioned work and shall be received by the undersigned upto 3:00 PM of 25th July, 2011.

Tender received shall be opened at **3:30 PM** on the same date, time and place in presence of the tenderers or their authorized agents who like to be present.

Detailed specifications, terms and conditions may be obtained from the office of the undersigned on any working days upto 22nd July, 2011 with an application and on payment of ₹.1500.00 (Rupees one thousand five hundred) only in cash.

Group No.	Name of Work	No.of Set	Court Fee Stamp	Earnest Money	Remarks
1.	Supply, Installation, Testing and Commissioning of Electrically Operated Centrifugal Pump Set with Motor and all Accessories complete for Tura Phase-II W.S.S. (Group - II).	1 Set	₹.1500.00	2% of the quoted amount.	

The above scope of work(s) is/are indicative only. The detailed scope of work and the terms and conditions have been specified in the detailed tender notice.

#### DETAILED SPECIFICATION

**NAME OF WORK :- SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF ELECTRICALLY OPERATED CENTRIFUGAL PUMP SET WITH MOTOR AND ALL ACCESSORIES COMPLETE FOR TURA PHASE-II W.S.S. (Group-III)**

**APPROXIMATE QUANTITY :- 1 Set.**

#### TECHNICAL SPECIFICATION (PUMP AND MOTOR) (I) CENTRIFUGAL PUMP SET

- 1) Horizontal Centrifugal Water Pump of Cast Iron construction complete with Motor and base plate. Set of suction and delivery Valve and Non-return Valves.
- 2) Burden type pressure gauge with isolation valve and fittings of pump delivery.
- 3) Pump and Motors shall be installed as per Manufacturers recommendations. Pump set shall preferably be Factory aligned. Whenever required necessary site alignment shall be done by competent person.
- 4) The tenderer shall have to submit the performance curve and leaflet On completion of entire installation pump shall be tested for discharge and BHP as per relevant code.
- 5) The offer for pumps shall be limited to KIRLOSKAR make only.

**(II) MOTOR :- SQUIRREL CAGE INDUCTION MOTOR :-** Motor shall be of most efficient and reputed Make. The motor provided shall confirm to IS:- 325 in General. The motor shall be squirrel cage induction motor rated for operation at 415 volts. 3 Phase. 50 H. and A.C. Supply. The motor shall be totally enclosed, fan cooled with enclosures confirming to IP-55,. The HP and speed of the Motor shall match that of the driven pump and the motor shall be suitable for line starting or Star Delta starting and provided with Class-B insulation. Details of pump, motor and materials, specification shall be furnished by the tenderer in the following matter.

#### A. PUMP:-

1. Type of Pump and Make : .....
2. Model Number : .....

3. Unit Offered	:	.....Numbers.
4. Minimum Discharge	:	..... LPS (Litre per Second)
5. Total Head	:	..... Meter
6. Suction Pipe Size	:	..... Milli Meter
7. Power rating	:	..... Horse Power
8. Size	:	..... Milli Meter
9. Recommended Prime Rating	:	..... Kilo watt
10. Pump Input	:	..... Kilo watt
11. Delivery Pipe Size	:	..... Milli Meter.
12. Power at Shaft	:	..... Kilo watt
13. Required NPSH	:	.....
14. Speed	:	..... RPM
15. Materials of construction	:	.....
A. Impeller	:	.....
B. Casing	:	.....
C. Shaft	:	.....
16. Sealing arrangement	:	.....
17. Weight of Pump	:	.....
18. Foot valve for priming	:	.....
19. Special Instruction (if any)	:	.....

**B. MOTOR:**

1. TYPE/Frame Size	:	.....
2. Make	:	.....
3. Protective enclosures	:	.....
4. Motor rating	:	.....KW/HP
5. Class of Insulation	:	.....
6. Operating Speed	:	..... RPM

**C STAR DELTA STARTER:-** The Raw water Pump and motor Shall be supplied with suitable Star Delta Starter L & T/CUTLER HAMMER/SIEMENS Make of push delta button operated air break fully automatic. Star Delta hand resetting type, three magnetic over load release with oil dash pot time lags inherent under voltage release, automatic change over timer, cables suitable for approximate motor rating etc.

**D. CONTROL PANEL BOARD:-** L & T Control Panel Board, self supporting floor mounted dust and vermin proof fabricated out of 16 S.W.G.M.S. sheet and M.S. angle frame only, painted in grey over 2 coats of Red Oxide and anticorrosive paint with front panel fitted with flush type equipments and operating devices with provision for fixing up the supply meter with locking arrangement independently for indoor with necessary wiring and connection with copper wire considering of :

**IN-COMING**

- |    |                                     |    |
|----|-------------------------------------|----|
| a) | Required TPN Switch with fuse (HRC) | :- |
| b) | Voltmeter                           | :- |
| c) | Sliding Lock Fuse                   | :- |
| d) | Volt-meter-Selector                 | :- |

- |    |             |    |
|----|-------------|----|
| e) | Pilot Lamps | :- |
| f) | Bus-Bar     | :- |

**OUT-GOING**

- |    |   |    |
|----|---|----|
| a) | Single phasing preventor with reverse rotation protection | :- |
| b) | Ammeter   | :- |
| c) | Contactor for Capacitor                                   | :- |
| d) | Push Button for Capacitor                                 | :- |
| e) | ON/OFF Switch for capacitor with Kit-Kat                  | :- |
| f) | Pilot Lamp  | :- |
| g) | Capacitor for appropriate rating                          | :- |
| h) | Provision for Star-Delta Starting (as detailed above).    | :- |

**TERMS AND CONDITIONS**

1. The offer should be made with complete details such as Model, Make, Rating specification of Pump and Motor and design calculations.
2. The rate should be quoted F.O.R. destination i.e place of Installation. The tenderers are requested to inspect the site before submitting the tenders.
3. No charge of packing, forwarding, handling etc. shall be paid extra.
4. Supply, Installation should be completed within 120 (one hundred twenty) days from the date of issue of work order. Failure to supply and install of pump and motor within stipulated time at his own quoted rate will lead to cancellation of Registration and penalty which may please be noted 75% of the payment shall be made on delivery and balance 25% within 3 (three) month after successful installation, testing and commissioning.
5. Supply should cover a guarantee for a period not less than 12(twelve) months against any fault or manufacturing defects etc. and if found defective, the supplier shall be bound to replace the same free of cost.
6. Necessary test certificate and leaflet/literature of the pump set should be submitted along with the Pump Set.
7. All Electrical works should be done by the licensed Electrical contractor of Govt. of Meghalaya.
8. Tenderers should calculate total head considering loss of head due to friction from William Hazen Graph or any other formula with static head.
9. The undersigned reserves the right to reject the lowest or any tender without assigning any reason thereof.
10. The rate quoted should be inclusive of all taxes and surcharges. Any tenderer quoting rate exclusive of taxes will lead to instant rejection of tender.
11. Training for 2 (two) departmental personnel for handling and maintenance at the site of work for a period not exceeding 7 (seven) days at the time of installation of pump and motor should be arranged free of cost.

**NOTE:-**

1. FIRM/CONTRACTOR SHALL HAVE TO SUBMIT THE TEST CERTIFICATE AND MANUFACTURER'S GUARANTEE CERTIFICATE TO THE CONCERNED EXECUTIVE ENGINEER AT THE TIME OF DELIVERY OF PUMP AND MOTOR.

2. THE SUPPLY OF PUMP AND MOTOR SHOULD COVER A GUARANTEE FOR A PERIOD OF NOT LESS THAN 12(TWELVE) MONTHS AGAINST ANY FAULT ON MANUFACTURING DEFECT. IF DETECTED THE CONTRACTOR/FIRM SHALL BE BOUND TO REPLACE THE SAME FREE OF COST.
3. TAXES AS APPLICABLE WILL BE DEDUCTED FROM THE BILL.

**DUTY REQUIREMENT FOR CENTRIFUGAL PUMP SET:****NAME OF SCHEME:-****TURA PHASE-II W.S.S.**

1.	Total Head	:	310 Metre
2.	Length of pumping main	:	6656.00 Metre
3.	Size of the pumping main(Delivery Pipe)	:	400 mm dia M/S Pipes
4.	Discharge required (Rate of flow)	:	65 Lps.
5.	Hours of Pumping	:	24 Hours
6.	Make	:	Kirloskar
7.	Pump type	:	MLA 8 STG
8.	Power	:	400 HP
9.	Size (Inlet/Outlet)	:	150mm x 175mm
10.	Speed	:	1475 RPM
11.	Pump Input	:	261.90 KW
12.	Recommended Prime Rating	:	300 KW
13.	Imp. Mat/Dia	:	BR/376 mm

**K. WAR,**  
Additional Chief Engineer, PHE,  
Zone-II, Garo Hills, Tura.

Tura, the 21st June, 2011

**No.ACE-II/PHE/GH/TB-69/100.**— Sealed tender affixing non-refundable Court Fee stamps as applicable purchased in Meghalaya are hereby invited from Company Authorized Dealer/Registered Firms/Class-I (one) Contractors and Suppliers of Public Health Engineering Department for the under mentioned work and shall be received by the undersigned upto 3:00 PM of 25th July, 2011.

Tender received shall be opened at **3:30 PM** on the same date, time and place in presence of the tenderers or their authorized agents who like to be present.

Detailed specifications, terms and conditions may be obtained from the office of the undersigned on any working days upto 22nd July, 2011 with an application and on payment of ₹.500.00 (Rupees five hundred) only in cash.

Group No.	Name of Work	No.of Set	Court Fee Stamp	Earnest Money	Remarks
1.	Supply, of Korloskar Make Spares including Repairing and Overhauling of Pumps for Tura Phase-II Water Supply Scheme. (Group-II)	1 Set	₹.500.00	2% of the quoted amount.	

The above scope of work(s) is/are indicative only. The detailed scope of work and the terms and conditions have been specified in the detailed tender notice.

#### DETAILED SPECIFICATION

**NAME OF WORK :- Supply of Korloskar Make Spares including Repairing and Overhauling of Pumps for Tura Phase-II Water Supply Scheme. (Group-II)**

**APPROXIMATE QUANTITY :- 1 Set.**

#### DETAILS OF THE EXISTING PUMP

1.	Power	-	400 HP
2.	Make	-	Kirloskar
3.	Pump Type	-	MLA 150x175,8 STG
4.	Pump No.	-	1264895004
5.	Q/ANo.	-	308260351/01.00
6.	Total Head	-	310m
7.	Size	-	150mm x 175mm
8.	Rate of Flow	-	65Lps
9.	Speed	-	1450 RPM
10.	Pump Input	-	270.62
11.	Recommended Prime	-	Rating- 300 KW
12.	Imp. Mat/Dia	-	BR/376mm

**The Details of spares, quantities and rates are at Annexure-I**

**TERMS AND CONDITIONS**

1. ED : 10% and Education Cess @ 3% on E.D.
2. C.S.T. : 2% against "C" Form
3. Freight Charges : As per actual.
4. Insurance : Materials have to be insured against damage and the cost to be borne by the contractor.
5. Validity : The rates are valid till delivery period. No. enhancement of rates is allowed.
6. Delivery & Commissioning : Within 5-6 months from the date of issue of order.
7. Terms of Payments : 85% payment against dispatch document on cost of spares through bank against bank guarantee and balance 15% after installation and commissioning.
8. Warranty : Warranty for 18 (eighteen) months from the date of installation and commissioning.

The bill should include Manufacturer's standard internal inspection & warranty certificate for all spares.

**Enclo:- Annexure -1.**

**ANNEXURE-I**

**DETAILS OF PUMP SPARES. QUANTITIES AND RATES TYPE: MLA - 150X175.**  
**8 STAGES SL. NO. 126-48-95002-003-004**

<b>SL No.</b>	<b>Material Description</b>	<b>MOC</b>	<b>Part No.</b>	<b>Price per each</b>	<b>Quantity required</b>
1	2	3	4	5	6
1	Diffuser	CIIS210-FG200	128	₹ .12,258.00	1
2	Diffuser with Dist vanes	CIIS210-FG200	129	₹ .24,831.00	7
3	Impeller	LTBRIS318-LTB2	151	₹ .1,31,814.00	8
4	Pump Shaft	CS IS 1570-40C8 HOT RLD	180	₹ .44,748.00	1
5	Wear Ring	LTBRIS318-LTB2	190	₹ .4,752.00	8
6	Casing Cover	CIIS210-FG260	2200001	₹ .28692.00	1
7	Casing cover Del	CIIS210-FG200	2200101	₹ .28,692.00	1
8	Clamping plate	CIIS 210-FG 200	224	₹ .1,980.00	1
9	Split Gland Bush	CIIS210-FG200	225	₹ .1,566.00	2
10	Split Lantern Ring Pairs	CIIS210-FG200	227	₹ .1,530.00	1
11	Liquid Deflector	PH BR IS 28GR 1	226	₹ .4,320.00	2
12	BRG Housing -DE, NDE	CIIS210-FG200	240	₹ .31,896.00	2
13	Bearing Cover DE	CIIS 210-FG 200	270	₹ .1,062.00	1
14	Bearing Cover NDE	MS IS 5986-Fe410 WA(OLD IS 1079)	271	₹ .675.00	1

<i>SL No.</i>	<i>Material Description</i>	<i>MOC</i>	<i>Part No.</i>	<i>Price per each</i>	<i>Quantity required</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
15	Shaft Sleeve-DE	ST ST ASTMA-276-410 34 OBHN	310	₹ .31,086.00	1
16	Shaft Sleeve-DE	ST ST ASTMA-276-410 34 OBHN	311	₹ .31,806.00	1
17	Interstage Bush	LTBRIS318-LTB2	358,	₹ .10,692.00	7
18	Oil Ring with oil Ring bearing	MS IS 5986-Fe410 WA (OLD IS 1079)&CIIS210=FG200	364 & 368	₹ .10,944.00	2
19	Gland Packing	SPITMAAN/CHAMPION-1800 OR EQ (RI-135)	430	₹ .4,500.00	1
20	Balancing Ring	CI IS 210-FG 200	463	₹ .5,985.00	1
21	Balancing Disc	LTBR15 318-LTB2	464	₹ .47,511.00	1
22	Set of O Ring	NEOPRENE RUB ASTMD2000-BE (60 SHORE/7MPa)	-	₹ .5,976.00	1
23	Set of Keys	CS IS 1570-40C8 HOT RLD	-	₹ .9,765.00	1

**K. WAR,**  
Additional Chief Engineer, PHE,  
Zone-II, Garo Hills, Tura.

Tura, the 21st June, 2011

**No.ACE-II/PHE/GH/TB-69/101.**— Sealed tender affixing non-refundable Court Fee stamps as applicable purchased in Meghalaya are hereby invited from Company Authorized Dealer/Registered Firms/Class-I (one) Contractors and Suppliers of Public Health Engineering Department for the under mentioned work and shall be received by the undersigned upto 3:00 PM of 25th July, 2011.

Tender received shall be opened at **3:30 PM** on the same date, time and place in presence of the tenderers or their authorized agents who like to be present.

Detailed specifications, terms and conditions may be obtained from the office of the undersigned on any working days upto 22nd July, 2011 with an application and on payment of ₹.500.00 (Rupees five hundred) only in cash.

<b>Group No.</b>	<b>Name of Work</b>	<b>No.of Set</b>	<b>Court Fee Stamp</b>	<b>Earnest Money</b>	<b>Remarks</b>
1.	Supply, of Korloskar Make Spares including Repairing and Overhauling of Pumps for Tura Phase-II Water Supply Scheme. (Group-II)	1 Set	₹.500.00	2% of the quoted amount.	



The above scope of work(s) is/are indicative only. The detailed scope of work and the terms and conditions have been specified in the detailed tender notice.

### DETAILED SPECIFICATION

**NAME OF WORK :- Supply of Korloskar Make Spares including Repairing and Overhauling of Pumps for Tura Phase-II Water Supply Scheme. (Group-II)**

**APPROXIMATE QUANTITY :- 1 Set.**

#### DETAILS OF THE EXISTING PUMP

1.	Power	-	400 HP
2.	Make	-	Kirloskar
3.	Pump Type	-	MLA 150x175,8 STG
4.	Pump No.	-	1264895004
5.	Q/ANo.	-	308260351/01.00
6.	Total Head	-	310m
7.	Size	-	150mm x 175mm
8.	Rate of Flow	-	65Lps
9.	Speed	-	1450 RPM
10.	Pump Input	-	270.62
11.	Recommended Prime	-	Rating- 300 KW
12.	Imp. Mat/Dia	-	BR/376mm

**The Details of spares, quantities and rates are at Annexure-I**

#### **TERMS AND CONDITIONS**

1. ED : 10% and Education Cess @ 3% on E.D.
2. C.S.T. : 2% against "C" Form
3. Freight Charges : As per actual.
4. Insurance : Materials have to be insured against damage and the cost to be borne by the contractor.
5. Validity : The rates are valid till delivery period. No. enhancement of rates is allowed.
6. Delivery & Commissioning : Within 5-6 months from the date of issue of order.
7. Terms of Payments : 85% payment against dispatch document on cost of spares through bank against bank guarantee and balance 15% after installation and commissioning.
8. Warranty : Warranty for 18 (eighteen) months from the date of installation and commissioning.

The bill should include Manufacturer's standard internal inspection & warranty certificate for all spares.

**Enclo:- Annexure -1.**

**ANNEXURE-I****DETAILS OF PUMP SPARES. QUANTITIES AND RATES TYPE: MLA - 150X175.  
8 STAGES SL. NO. 126-48-95002-003-004**

<b>SL No.</b>	<b>Material Description</b>	<b>MOC</b>	<b>Part No.</b>	<b>Price per each</b>	<b>Quantity required</b>
1	2	3	4	5	6
1	Diffuser	CIIS210-FG200	128	₹ .12,258.00	1
2	Diffuser with Dist vanes	CIIS210-FG200	129	₹ .24,831.00	7
3	Impeller	LTBRIS318-LTB2	151	₹ .1,31,814.00	8
4	Pump Shaft	CS IS 1570-40C8 HOT RLD	180	₹ .44,748.00	1
5	Wear Ring	LTBRIS318-LTB2	190	₹ .4,752.00	8
6	Casing Cover	CIIS210-FG260	2200001	₹ .28692.00	1
7	Casing cover Del	CIIS210-FG200	2200101	₹ .28,692.00	1
8	Clamping plate	CI IS 210-FG 200	224	₹ .1,980.00	1
9	Split Gland Bush	CIIS210-FG200	225	₹ .1,566.00	2
10	Split Lantern Ring Pairs	CIIS210-FG200	227	₹ .1,530.00	1
11	Liquid Deflector	PH BR IS 28GR 1	226	₹ .4,320.00	2
12	BRG Housing -DE, NDE	CIIS210-FG200	240	₹ .31,896.00	2
13	Bearing Cover DE	CI IS 210-FG 200	270	₹ .1,062.00	1
14	Bearing Cover NDE	MS IS 5986-Fe410 WA(OLD IS 1079)	271	₹ .675.00	1
15	Shaft Sleeve-DE	ST ST ASTM A-276-410 34 OBHN	310	₹ .31,086.00	1
16	Shaft Sleeve-DE	ST ST ASTM A-276-410 34 OBHN	311	₹ .31,806.00	1
17	Interstage Bush	LTBRIS318-LTB2	358,	₹ .10,692.00	7
18	Oil Ring with oil Ring bearing	MS IS 5986-Fe410 WA (OLD IS 1079)&CIIS210=FG200	364 & 368	₹ .10,944.00	2
19	Gland Packing	SPITMAAN/CHAMPION-1800 OR EQ (RI-135)	430	₹ .4,500.00	1
20	Balancing Ring	CI IS 210-FG 200	463	₹ .5,985.00	1
21	Balancing Disc	LTBR15 318-LTB2	464	₹ .47,511.00	1
22	Set of O Ring	NEOPRENE RUB ASTM D2000-BE (60 SHORE/7MPa)	-	₹ .5,976.00	1
23	Set of Keys	CS IS 1570-40C8 HOT RLD	-	₹ .9,765.00	1

**K. WAR,**  
Additional Chief Engineer, PHE,  
Zone-II, Garo Hills, Tura.

OFFICE OF THE SUPERINTENDENT OF POLICE (FIRE & EMERGENCY SERVICE)  
MEGHALAYA, SHILLONG.

Shillong the 10<sup>th</sup> June/2011.

NOTICE INVITING TENDER

**No.MFS/A-35/CS/2009-10/64/2920.** - Sealed Tenders are invited for fabrication of Ashok Leyland Chassis COMET GOLD 1616 (H)- 4330 MM .into **Water Tender Pump** and fabrication of **Mini water Tender with high pressure pump based on water mist technology** on 207 DI Pick up Chassis. The Sealed Tenders will be received upto **1200 Hrs. on 11<sup>th</sup> July, 2011** and will be opened on the said date at **1300 Hrs.** by a Tender Opening Committee in the office of the Superintendent of Police (F&ES), Meghalaya, Shillong. Tenderers or their authorized representatives are invited at the time of opening the Tenders. Tenders received after **1200 hrs** by hand or by post will be summarily rejected.

TERMS & CONDITIONS:-

1. Tenders must be accompanied by the following: -
  - a. Non-refundable Court Fee Stamp of Rs. 2,000/- (Rupees two thousand) only .
  - b. Earnest Money of Rs. 2,81,912/- (Rupees two lakh eighty one thousand nine hundred twelve) only pledged in favour of the Superintendent of Police, Meghalaya, Shillong from any Nationalized Bank or General Post Office at Shillong in any of the following form free of interest.
    - (i) Crossed Bank Draft.
    - (ii) Deposit at Call.
    - (iii) Fixed Deposit.
    - (iv) NSC/KVPTenderers belonging to Schedule Castes and Scheduled Tribes may deposit 50% of the earnest money mentioned above.

**NOTE:** Earnest Money of the past tenders which is yet to be release by this office will not be considered for this instant tender.
- (c)
  - (i) SC/ST Certificate.
  - (ii) Attested copy of V.A.T. Clearance Certificate & V.A.T. Registration Certificate with list of items registered therein.
  - (iii) Attested copy of Professional Tax Clearance Certificate.
  - (iv) Attested copy of recent passport size photograph of the tenderer.
  - (v) Financial Stability Certificate from Scheduled Bank duly attested.
  - (vi) Dealership Certificate from genuine fabricator of firefighting vehicles registered with N.S.I.C. or equivalent, all details including the past experience of the fabricator is also to be submitted by the tenderer.
  - (vii) In case the firm is intending to do the fabrication by themselves, the following documents should be furnish by the firm:-
    - a) Registration Certificate of the Firm's Workshop/Industry with the Director of Industries.
    - b) I.S.O. Certification of the Firm's Workshop/Industry.
    - c) Past experience details of fabrication of fire fighting vehicles in the workshop/industry.
    - d) Location, address and full detail of the Workshop/Industry.
  - (viii) Where the tenderer or his principal have any existing and valid rate contract with DGS & D, an authenticated copy of such rate contract should be furnished.
  - (ix) Tenderer who are required to obtain trading licence in terms of Khasi Hills, Jaintia Hills and Garo Hills Districts (Trading by Non-Tribal Regulation, 1954) as amended from time to time, must produce an attested copy of such valid licence.

2. Rates: -
  - a. Should be quoted in figure and in words.
  - b. Should be quoted F. O. R. destination i.e. Supdt. of Police, (F&ES), Meghalaya, Shillong. Provincial Stores (Fire Service), Nongthymmai, Shillong or as directed by the Department.
  - c. Should be inclusive of all charges, insurance and other incidental charges, only Local Tax may be shown extra, if applicable.
  - d. Should be written clearly in figures and in words. Any alteration or overwriting must be fully signed and sealed by the tenderer himself / herself.
3. An undertaking should be submitted by the tenderer before opening of the sealed tender stating that he/she is satisfied with the terms & condition of the N.I.T. and agree to abide by the same. In case of failure to submit the undertaking, the sealed tender of the particular firm will not be opened and will be returned back accordingly.
4. The rate should be tendered for the complete item of work including all accessories, equipments as per specifications at Annexure 'A' & 'B'.
5. The tenderer or their representatives/agents must be present during the tender opening alongwith their firm's seal and authority letter in case of representatives/agents. Whatever objection is to be raised should be done during the Tender Opening Proceeding. Raising objection after the completion of tender opening proceeding will be treated as null & void and the undersigned is not bound to entertain such objections.
6. If at the time of opening of tender, should there be any objection raised by the majority of the tenderer/representatives present as to validity of the tender, the objection will be duly examined by the Tender Opening Committee whose decision on such objection will be final and binding and tenderer will have no right to raise objection on the decision of the Tender Opening Committee.
7. Tenders must be addressed to the undersigned by designation and not by name. On the sealed envelope containing the tender, the words "Tender for Fabrication of Fire Fighting Vehicles/Appliances" should be superscribed and the firm's seal should be stamped on the body of envelop.
8. Tenders must be sent by registered cover or hand delivered.
9. Tenders without furnishing all the required papers/documents will automatically stands rejected.
10. Risk of transportation of the fire fighting vehicles/appliances will be borne by the tenderer themselves after fabrication.
11. Tenderers must be prepared to accept item-wise rate, if offered by the department, otherwise their earnest money will be forfeited.
12. The successful tenderer/tenderers will: -
  - i) be intimated by a letter of acceptance by the office of the Supdt. of Police (F&ES), Meghalaya, Shillong. Till then, no tenderer has any right to assume that his/her tender has been accepted. There shall be no claim whatsoever for compensation for any expenditure incurred by any tenderer in anticipation of acceptance letter.
  - ii) have to submit Proforma Bill as and when called for and should comply with the requisition at any cost. Failing to comply with any of the demand/requisition made by the undersigned will invite forfeit of Earnest Money.
  - (ii) be required to furnish a security deposit @ 10% of the Total work value for all and execute a contract agreement to ensure fulfillment of the terms and conditions of the contract which the successful tenderer (s) will have to enter into. Such security deposit will be subjected to forfeiture in case of non-fulfilment of any or all terms and conditions of the Contract Agreement and the N.I.T.

- (iii) The earnest money of the successful tenderer (s) will not be released till he/she has furnished the full security deposit.
  - (iv) Earnest Money of the successful tenderer (s) will be forfeited to the Government in case of failure to furnish the security deposit in full.
  - (v) Rate of security deposit is 10% of the work value for all.
  - (vi) Furnish an Indemnity Bond on appropriate stamp paper and a comprehensive insurance cover for the entire cost and safe custody of the chassis until fire appliances are fabricated and delivered to the department.
  - (vii) Receipt of the chassis by the fabricator at the fabrication site should be intimated to the undersigned immediately and without any undue delay.
  - (viii) Furnish a Guarantee against defective materials or inadequate design or workmanship for a period of eighteen months from the date of delivery of fabricated vehicles.
  - (ix) Security Deposit shall be released only after expiry of the guarantee period.
  - (x) Once the rates offered in the tender are accepted, no enhancement of rates will be allowed under any circumstances and the tenderer (s) will be liable to fabricate at the rates accepted by the Supdt. of Police, (F&ES), Meghalaya, Shillong. Failure to fabricate at the accepted rates will entail the offer being cancelled and the security money forfeited to the Government of Meghalaya.
13. Fabrication must be of the same specifications and quality as offered in the tender.
14. Delivery must be completed within Ninety days from the receipt of the firm order and chassis. No extension of delivery period will be entertained.
15. Payment will be made to the successful tenderer/tenderers directly only on the completion of fabrication and on full and correct receipt of the vehicles by the department in good working conditions. Documents / Vouchers / RR Bills etc routed through Banks will not be accepted.
16. In the event of the successful tenderer/tenderers failing to perform his/her part of the Contract to the satisfaction of the department or disregarding any terms and conditions of this tender notice or the Contract agreement, the successful tenderer/tenderers will be liable to any or all of the following actions at the discretion of the Supdt. of Police, (F&ES), Meghalaya, Shillong.
- (i) Forfeiture of the security deposit.
  - (ii) Making good the loss caused to the Government through the liabilities, neglect or delay in complying with the demand.
  - (iii) Cancellation of the contract without any prior notice.
17. All losses sustained by the Department/Government due to failure, omission or neglect of the successful tenderer (s) will be realized from his or her security deposit and if the recovery from the security deposit is not sufficient the successful tenderers shall be liable to pay the compensation as shall be fixed by the Department/Government accordingly.
18. In the event of rejection, failing, declining, neglecting or delaying to comply with any demand or requisition, the undersigned shall be at liberty, without prejudice to any other remedy the department may have on account of any claim for compensation against loss and inconvenience caused by such breach, to order purchase at the expense of the successful tenderer (s) such supply as may have been rejected, or failed, neglected or delayed to supply or any excess cost incurred over the accepted rates. The successful tenderer (s) shall be liable to pay such compensation to the Government in full.
19. The undersigned may rescind forthwith the contract in writing if successful tenderer/tenderers: -
- (i) assigns or sublets the contract without his approval in respect of the contract or any other contract entered into with the Government.
  - (ii) his agent or servant are guilty of fraud in respect of this contract or any other contract with the Department or Government.
  - (iii) declines, neglects or delays to comply with the demand or requisition or in any other way fails to perform and/or observe any condition of the contract.

16. Chassis will be released by this department through the nearest Sale Centre to the successful tenderer/tenderers fabrication site.
17. The undersigned reserves to himself the right to reject any or all tenders without notice nor assigning any reasons thereof.
18. The acceptance or rejection of the tender rest finally with the undersigned and reserves the right of rejecting any tender or any item in the tender without assigning any reason thereof.
19. The Authority is not bound to accept the lowest tendered rates.

**D. M. SANGMA,**  
Superintendent of Police, (F&ES),  
Meghalaya, Shillong.

SPECIFICATION FOR WATER TENDER TYPE B FOR FIRE BRIGADE USE

## 1. GENERAL REQUIRMENTS

1 CHASSIS

The chassis will be Ashok Leyland Chassis COMET GOLD 1616 (H)- 4330 MM (170.5") WB goods Chassis fitted with BS III diesel engine, 5 speed synchromesh gear box, power steering , spare wheel carrier and rim, wiper motor, steel front end structure, RUPD, mirror suppressor, tool kit and CMVR Kit, Hydraulic jack (3+4) 10.00 x 2016 PR PD Nylon tyres, and the same will be supplied by the department.

2. PUMP:

2.1 The pump shall be centrifugal type, multi pressure, having out put capacity of 2000 LPM at 7 Kg/cm<sup>2</sup> and 300 LPM at 35 Kgs/cm<sup>2</sup> at 3 meters suction lift at NTP condition. The low pressure side will be of single stage and the high-pressure side also with single stage having regenerative type impeller.

2.2 The pump shall comply to the following performance parameters.

- |    |   |   |   |
|----|---|---|---|
| a) | Normal Pressure output                    | : | 2000 LPM at 7 Kgs./cm <sup>2</sup>                            |
| b) | High pressure output                      | : | 3000 LPM at 35 Kgs./cm <sup>2</sup>                           |
| c) | Maximum pressure<br>in normal mode        | : | 14 Kg/cm <sup>2</sup> (shut off pressure)                     |
| d) | Maximum pressure in<br>High pressure mode | : | 45 Kg/cm <sup>2</sup>   |
| e) | Deep lifting capacity of<br>Pump .        | : | 30 cm/sec. max. upto 7 Meters in 30 sec. at NTP<br>Condition. |

2.3 The overall pump shall be constructed from gunmetal. The normal (low) pressure impeller, volute, and impeller wearing shall be made from gunmetal confirming to Gr II of IS 318/1981 and the regenerative type high pressure impeller shall be of Aluminum, Bronze (AB-2). The pump shaft shall be made form stainless steel confirming to IS 6603/1972. The bearing housing will be made of C.I. and all the studs and bolts coming in contact with water shall be of stainless steel. The bearing used in the pump shall be of reputed make

2.4 The normal and high-pressure impeller shall be mounted on a single shaft and normal (low) pressure impeller shall be dynamically balanced.

2.5 The pump shall be provided with self adjusting mechanical carbon seal with interface plate. The mechanical seal assembly shall with stand dry running of pump upto 2 minutes without any damages.

2.6 The pump shall be provided with an inbuilt filter of easily removable type, which shall filter the water before entering into the high-pressure stage impeller.

2.7 Operation of low pressure to high pressure or vice-a-versa shall be possible by actuation of single lever.

2.8 The pump shall have facility to operate low pressure and high-pressure mode simultaneously or individually. While high pressure mode is in operation and delivering 300 LPM at 35 Kg/cm<sup>2</sup>, the pressure in low pressure side shall not exceed 8.5 Kg/cm<sup>2</sup>.

- 2.9 The size of high-pressure outlet shall be of 25 mm connected to high-pressure hose reel.
- 2.10 The pump shall be provided with one suction inlet of 100 mm dia. having round threads conforming to IS: 902 of 1974 and TWO numbers of 63 mm delivery outlets having screw down type valves fitted with instantaneous couplings as per IS 903/1993. The delivery valve spindle sealing shall not be of gland type. The high-pressure outlet shall not be less than 25 mm and shall either be flange or screw type.
- 2.11 The efficiency of the pump shall be such that the power and RPM required shall not be more than available with the engine.
- 2.12 The pump housing shall have provision to connect to internal cooling system.
- 2.13 The pump shall be mounted at the rear of the vehicle connected to P.T.O. by propeller shafts and universal and slip joints with sufficient number of bearing supports.
- 2.14 Pump primer – The priming system shall be Reciprocating type or fully automatic watering type which shall not require any operation whatever from the pump operator other than throttling the engine to the required RPM. The primer shall get automatically disengaged once the pump is registered the pressure. The primer shall be capable of lifting the water in 30 seconds from the depth of 7 meters. (upto pump inlet) at NTP condition. The reciprocating pistons shall be made up of stainless steel or Gun Metal. The cylinder and priming valve housing shall be made from gunmetal.
- 2.15 In addition Exhaust ejector type primer capable of lifting water from 7 meters within 30 seconds shall also be provided.

### 3 PUMP TEST:

The pump fitted on the vehicle shall be subjected to various test as detailed below

- 3.1 The pump with its all fitments will be subjected to Hydrostatic testing on a pressure of 21 Kgs./cm<sup>2</sup>.
- 3.2 The pump shall be run dry for a period of minimum two minutes at 2000 RPM to check the integrity of mechanical carbon seal. After this test there shall not be any leakage of water through carbon seal.
- 3.3 The pump performance test will be carried out by running the pump at constant RPM at 2600 and measuring the discharge at various pressure.
- 3.4 The pump will be subjected to Endurance test for a period of FOUR hours continuous running. The first time hours the pump shall deliver rated out put of 2000 LPM at 7 Kg/cm<sup>2</sup> and next one hour will be 300 LPM at 35 Kg/cm<sup>2</sup>.
- 3.5 During the endurance test the water shall not be replenished in the cooling system and the temperature of the cooling water and engine oil should not exceed the manufacturers standards recommendations for the continuous operation and engine should not show any sign of temperature increase.

4. POWER TAKE OFF: The P.T.O shall be Heavy duty type of suitable ratio capable of transmitting the full torque of the engine in first gear. The lever for engaging the P.T.O shall be provided in the Driver's cabin with proper locking arrangement. The PTO shall be mounted on heavy duty cross members and support brackets between the longitudinal members of the chassis frame. Means shall be provided to check the oil level in the PTO and suitable drain plug shall be provided at the bottom. A cooling coil made of copper tubes shall be provided inside the PTO at the bottom to prevent the oil of the PTO from heating.



**5. WATER TANK** – The capacity shall not be less than 4500 liters. The tank body and baffles shall be of minimum 5 mm thick MS plates conforming to IS 2062. The sides of the tank shall have DIE PRESSED reinforced webs for better strength and rigidity. The design of the tank should be such that the complete width of the vehicle is utilized and the height of the tank is to be kept as low as possible for better stability.

5.1. A tank of required capacity constructed out of mild steel treated for anti-corrosion shall be suitably mounted on the chassis in a manner keeping in view the proper load distribution on the axles.

5.2. A full length runner from behind the driver cabin till end of chassis frame shall be provided and made out of M.S. Channel of 100 x 50 x 5 mm suitably fixed to the chassis, frame shall be provided and made out of M.S. plate and bolted to chassis frame wherever holes are available in the chassis frame and also with 5/8" 'U' bolts and nuts shall be nylock nuts only.

5.3. The tank shall be suitably baffled with minimum 2 nos. baffles fitted transversely to prevent surge when the vehicle is breaking, cornering or accelerating.

5.4. The baffles shall be arranged in a manner to facilitate the passages of a man throughout the tank for cleaning purpose.

5.5. The tank shall be mounted on minimum three cross members to counter act the stresses caused by chassis flexion and shall be so secured that it can be easily removed. The water tank shall be provided with six chairs, three on either side for mounting the tank on the runner and chassis frame.

5.6. The water tank shall be fixed to the chassis frame and runner with 'U' clamps and aluminum packing block and self-locking nuts.

5.7. Suitable eyes shall be provided on the shell of the tank to enable it to be lifted from the vehicle for repairs / replacement as and when required.

5.8. The tank shall fitted with a 50 mm bore overflow pipe. Two 63 mm instantaneous hydrant connection, incorporating a strainer with NRV, shall be provided close to the pump control panel for filling the tank through 75 mm bore pipe. Minimum 125 mm internal dia butterfly type valve. Drain valve shall be provided at the bottom of the tank.

3.3 The MS plates used for the tank shall be ZINC PLATED or galvanized and shall be given adequate anti-corrosive treatment of epoxy treatment consisting of one coat of primer with two coats of finish after preparing the surface by sand or shot blasting from inside and outside after fabrication if it is not galvanized. The open end of the overflow pipe should be taken down to a point well below the chassis without affecting the effective ground clearance when fully loaded and shall discharge away from the wheels.

3.4 Visual level gauge of the glass / acrylic tube shall be provided at the control panel calibrated ¼, ½, ¾ and full (preferably calibrated in liters).

3.5 The tank shall have a bolted manhole of 60 cm dia minimum and should have a gun metal treaded ring and gun metal cap of 30 cm dia for filling the water tank from the top. The manhole cover shall be made from 5 mm thick M.S. plate and epoxy coated from inside and outside. A cleaning hole of at least 25 cm dia shall also be provided at the bottom.

3.6 The tank shall be connected with the pump and hose reel and valve(s) shall be provided in such a way that any of the following operations are possible:

- (a) Hydrant – tank,
- (b) Hydrant – reel,
- (c) Tank – pump – high and low pressure hose reels,
- (d) Hydrant – pump – low pressure hose reel, and
- (e) Tank – Pump- Monitor (Foam/Water)
- (f) Off.

**8. DELIVERY OUTLETS:** There will be 2 Nos. delivery outlets having standard GM instantaneous female coupling with screw type delivery valves with blank caps. It will have twist type lugs made of gun metal.

9. HIGH PRESSURE HOSE REEL: Two high pressure hose reel to facilitate operation of the high pressure section of the Fire Pump will be provided and mounted so as to be accessible for use from either side of the appliance. The hose should be prevented from kinking. The hose shall be light weight PVC nylon braided hose and the working pressure of hose will not be less than 40 Kg/cm<sup>2</sup>.

The high pressure Hose reels will hold not less than 30 M of hose in one length, terminating in High pressure fog/jet trigger type gun connected by quick connect by quick connect couplings. The gun shall be made of Aluminum alloy or stainless steel (SS 304).

The inlet connection shall have a leak proof rotating type hose connector. The gun shall be of constant flow type and shall have a discharge capacity of 150 LPM approximately. Provision shall be made in the gun controls to achieve combat mode (straight jet) or a fog shield in split second. The gun shall have the ability to work on pressure for 20 Kg/cm<sup>2</sup> to 40 Kg/cm<sup>2</sup> without affecting discharge pattern. The weight of the gun assembly shall not be more than 3Kg.

10. WATER/ FOAM MONITOR: One water cum foam self aspirating type monitor will be provided on the top at suitable location, with capacity of 2000 LPM of water @ 7 Kg/cm<sup>2</sup>. The monitor will be capable of traversing through 360 degree in horizontal plane, +75° degree & -15° in vertical plane with discharge range of 70 Meters (water). The detailed specification of the Monitor is as under.

Size	75 mm
Body	Barrel of SS, GM swivel joint for horizontal & vertical Motion manual operation.
Rotation	360°
Elevation	90° (+75° -15°)

#### 10.1 CONSTRUCTION DETAILS

Working pressure	7 Kg/cm <sup>2</sup>
Painting	As per IS:5 (2 coats of red enamel paint)

#### 10.2 SELF INDUCTION NOZZLE

Material of construction	Aluminium alloy to IS:617 or GM LTB Gr.2 of IS:318.
Type of Foam used	AFF Foam
Discharge capacity	2000 LPM
Throw horizontal	Water: min. 60 mtrs, Foam: min. 50 mtrs.
Foam Expansion	Min. 1:6
Fog (curtain)	160°
K Factor	100.

A suitable pick up tube of min 5 mtrs long with perforate piercing tube shall be provided alongwith the monitor.

#### 11. PIPELINES AND VALVES:

11.1 All pipelines and pipe fittings shall be of Stainless steel (SS 304) and all valves upto 50 mm size shall be 3 piece design SS 304 ball valves. All valves above 50 mm size shall be standard butterfly valves.

11.2 All piping shall be sized so as to have minimum pressure drop and achieve the required pressure and flow at various locations.

11.3 All piping shall be designed for 10% over the maximum pressures encountered in the pipe.

11.4 The piping shall be flanged for ease of maintenance. However, flange joints shall be kept to minimum.

11.5 All lines shall be hydraulically tested at 1.5 times of the design pressure and pressure shall be held for two hours. In no case the lines shall be tested below 25 Kg/sq. cm. (g).

11.6 All lines shall be suitably supported so as to provide rigidity and avoid vibrations.

11.7 All lines less than 50 mm NB size can be socket welded to matching rating fittings.

11.8 All lines above 500 mm NB size shall be butts welded with full penetration welds.

11.9 All bolts, nuts and washers used shall be of SS-304.

11.10 COOLING STSTEM: An indirect cooling system of open circuit type heat exchanger shall be provided for cooling the radiator water & Engine. The heat exchanger tank shall be made from minimum 1.22 mm thick brass sheets and the coil in the coolant tank shall be of copper for effective cooling. The design of the heat exchanger shall be such that the temperature of the engine shall not exceed the operating temperature specified by the chassis manufacturer when the vehicle is being used in stationary conditions.

## 12. CONTROL PANEL

12.1 Adequately illuminated control panel shall be provided near the pump.

12.2 The control panel(s) shall include the following:

- a) Throttle control for engine;
- b) Pressure gauge – 0 to 17.5 Kgf/cm<sup>2</sup>; for low pressure (glycerin filled)  
Pressure gauge – 0 to 50 Kgf/cm<sup>2</sup>; for high pressure (glycerin filled)
- c) Compound gauge (glycerin filled) calibrated as under:  
Vacuum – 0 to 75 cm Hg, preferably in black;  
Pressure – 0 to 15 Kgf/cm<sup>2</sup>, preferably in black;
- d) Primer control for exhaust primer
- e) Temperature gauge and glow lamp for lubricating system
- f) Cooling water circuit control
- g) Water tank valve
- i) Delivery valves.
- j) Suction inlet/
- k) Hose reel valves.
- l) Water level indicator.

## 13. BODY WORK AND STOWAGE:

13.1 Enclosed accommodation for six persons shall be provided in the driver cab-cum-crew compartment including the driver and the in-charge of the crew. Both the seats should be independent. The driver's seat should be adjustable and comfortable. The rear compartment of driver's cabin should have one removable seat for full width of cab for 5 (five) crew members. The cab floor should be covered with 3 mm thick Aluminum chequered plate rigidly fixed to the under frame cross members by means of nuts and bolts or riveting except the mudguard arches which shall be covered with 1.60 mm Aluminum chequered plates. Trap doors for topping up oil etc. wherever necessary shall provided.

13.2 One roof light should be provided in the driver's cabin dwell vision and external rear view mirrors should be fitted to the cab.

13.3 The driver cum crew cabin shall be provided with full four doors, one driver, one for officer and two at the crew compartment. The doors shall be generously sized for easy embarking / disembarking

of crew members. All the doors shall be fitted on the super structural members, each hung upon three invisible coach type M.S. stout hinges and fitted with best quality handles.

13.4 The door handle on outside of driver seat shall have a locking arrangement. Other doors shall be lockable from inside. In addition to the doors locks, aluminum tower bolt shall be provided for all the doors from inside. Adequate grab rails shall be provided for easily boarding and alighting from the appliance.

13.5 The windscreen glass shall be provided in the two halves and shall be semi curved type. Each glass shall be fitted in E.P.D.M. rubber beading. The glasses shall be 5 mm thick toughened safety glass.

13.6 The rubber beading used for fitting glasses and window frame shall be E.P.D.M. rubber.

13.7 The driver seat shall be adjustable type vertically, forward and backward. The officer seat shall be fixed type. Both the seats shall be rigidly fixed to the flooring by means of nuts and bolts.

13.8 The seat cushion shall be of latex foam rubber 75 mm thick upholstered in good quality foam leather cloth. The back seat shall be of latex foam rubber 50 mm thick upholstered in good quality foam leather cloth.

13.9 Below the crew seat, two lockers shall be provided. One for battery box and another for keeping accessories. The extra length of battery cable if required shall be provided.

13.10 The crew seat shall be rigidly fixed to floor by means of nuts and bolts, running full width of the vehicle suitable for sitting five fireman, covered with 75 mm x 50 mm cushion latex foam rubber upholstered in good quality foam leather of approved shade.

13.11 The rear body shall be fabricated in continuation and in line. The under frame cross members shall be fabricated from the rolled M.S channel of 100 x 50 x 5 mm size.

13.12 The M.S runner of 100 x 50 x 5mm size shall be provided over the full length of the chassis member for the uniform distribution of load over the chassis.

13.13 Each cross members shall be secured to the chassis frame by 16 mm dis 'U' Bolts with aluminum packing block and self locking unit.

13.14 Balata packing of thickness 6 mm shall be provided in between the chassis frame and across members.

13.15 The structure / frame work shall be of welded constructions and made from 2 mm thick MS pressed sections and square tubes. The Angles and channels used shall be of min. 3 mm thickness. The complete structure material shall be treated for anti corrosion by ZINC PLATING. The plating thickness shall not be less than 20 microns. Two coats of Epoxy paint shall be applied to the completely welded structure.

The structure shall be so designed so as to avoid any vibration / ratting / deformation in the intended usage of the vehicle.

13.16 The details of super structure are as follows:

- |                               |   |                        |
|-------------------------------|---|------------------------|
| a) Under frame cross members  | : | 100 x 50 x 5 mm (Min.) |
| b) Floor longitudinal members | : | 50 x 50 x 6 mm (Min)   |

The cab and lockers should be of composite construction with sufficient rigidity and reinforcement and shall be kept as light as possible.

The interior panelling shall be done from 1.22 mm thick aluminum sheets & the exterior panelling shall be done from 1.60 mm thick aluminum sheets.

The roof on the cabin of the vehicle shall be covered with min 1.60 mm thick aluminum chequered plates. All the lockers sides & complete rear of the vehicle shall be covered with min. 1.22 mm thick aluminium chequered plates. The complete rear deck and all lockers floors and the rear foot boards shall be covered with minimum 3 mm thick aluminum chequered plate.

Sufficient number of Lockers with suitable shelves, partitions and roll in roll out type drawers / trays shall be provided on both sides of the vehicle for secure stowage of all equipments and accessories. One thorough locker shall be provided immediately behind the drivers cab. All space available below the chassis frame level shall be utilized by providing lockers with proper doors. These doors shall be fitted with suitable chains and hooks on both sides so that the same can be used as foot board.

All lockers shall be provided with internal automatic lighting arrangement with the master switch in the cab.

All lockers above chassis floor shall be covered with Aluminum roller shutters. The roller shutters shall be made from extruded aluminum sections with suitable roller, spring, guide channels etc. All aluminum sections used shall be properly anodized.

The Roller shutters shall be rolled inwards underneath the roof giving unobstructed access to the equipment lockers and the fire fighting material.

These roller shutters should open in every position of the vehicle even in rough terrain. Guide rails shall support the shutters over entire length on both sides to make them absolutely torsion free. The roller shutters should have a sturdy lock, preventing accidental opening during movement of vehicle.

Roller shutters shall be made of hollow rectangular shaped aluminum links which shall be inter connected with rubber / plastic/ PVC profiles sealing the roller shutter watertight when closed. These roller shutters should be durable, maintenance free, weather and corrosion resistant.

Suitable storage space shall be provided to store four 2.5 m lengths of suction hoses with couplings at convenient location.

**SPECIAL PROVISION FOR STOWAGE OF EQUIPMENTS:** For all hose fittings like branch pipes etc. quick release type couplings are provided which enables the operator to locate the desired equipment instantly and thereby save valuable time at the time of fire. These couplings also ensure that none of the items damage the internal panelling & thereby increase the life of the vehicle. Suitable clamps, brackets, holders etc. are provided for all other items.

#### 14. MISCELLANEOUS

a) A suitable bumper shall be provided at the rear rigidly fixed to the super structural members by means of nuts and bolts which is supplied alongwith the chassis.

b) Two cat ladders made out of S.S. round or square pipe of 25 mm dia shall be provided.

c) 2 nos. of 25 mm dia aluminum pipe railing with sufficient number of aluminum double socket brackets shall be provided to the rear body over the deck.

d) A heavy duty Towing hook shall be provided and fitted the rear bumper by means of nuts and bolts.

e) Quick removable type wire mesh guard made from 25 x 25mm size MS wire mesh of 1.60 mm covered in MS angle frame shall be provided to all glasses of driver-cum-crew cabin.

f) CABLE WINCH: An electrically operated cable winch of not less than 6.5 tons pulling capacity (single layer) shall be provided. The winch unit should be complete with minimum 5.5 hp, 12v DC series wound electric reversible motor for pulling operations. The motor and solenoids shall be grounded to the battery. It shall have an automatic load holding brake system for holding the load. For free spooling the clutch design shall be easy to use type with spring loaded pull and rotate system. The gear system should be 3 stage planetary type for faster line speed and the gear reduction ratio shall not be more than 300:1 for maximum duty cycle, the rope drum shall not be of more than 8 inches dia and shall be supplied with minimum 90 ft heavy duty galvanized wire rope with replaceable self locking clevis hook and shall be mounted on the front bumper of the vehicle with suitable strong supports and a 4 way roller fairlead. Weather resistant clutch housing and solenoid assembly for maximum durability under any weather should be provided. Winch shall be provided with a wireless remote control mechanism for ease of operation.

g) TELESCOPE LIGHT MASTS

A Pneumatic telescope mast should be mounted on the vehicle. It should be manufactured from Anodized aluminum pipes and have a minimum of 115 mm diameter on its base for stability. The temperature range shall be from -25 deg. C up to 60 deg. C, with anti-twist lock, with safety valve and drainage outlet valve.

The telescopic mast should be extremely strong and designed with a minimum of 5 sections with internal spiraled Electrical cable. Each section of the mast should have a water drainage outlet. The maximum height of the mast when deployed should be minimum 6000 mm (from the ground). The retracted height should be of maximum 1750 mm.

The Light mast will have 4 x 1000 Watt Halogen flood light projectors in weather proof casing. The floodlight on the top should have a minimum electrical rotation of 355° and a tilt of 350°. The fully extended mast shall be capable of withstanding wind speed of min. 120 Km/hr/.

Suitable connections for taking permanent Power Supply from generator set through an internal spiral wire mounted inside the mast should be provided. Each halogen light should have the possibilities to be switched independently through individual switches.

All the functions of the mast, including extension and return to the original position, lights on/off, automatic restore should be capable of being done through a wire remote control. An additional remote control without cable (wireless) should be provided. The lamps shall be provided in a weather proof box with top cover which will be extended alongwith the lamps when in use. A 5 KVA portable Petrol engine operated GENSET shall be given to the light mast.

## 15. ELECTRICAL SYSTEM:

15.1 All the important electrical circuit shall have separated fuses suitably indicated and shall be grouped into a common fuse box located at an accessible position. The wiring shall be single pole with negative earth.

15.2 The suitable size wire shall be selected for different circuits considering the current consumption for that circuit.

15.3 Electrical siren of 1.6 Km range 12/24 volts D.C. shall be provided and fitted at suitable place with two controlling push buttons on one officer side and another at Driver side.

15.4 Two rotating beacon lights with Amber lens shall be provided over the top of driver's cabin.

15.5 The other light, pump cabin light, locker lights shall be approved make.

15.6 All the controlling switches of lights on dashboard shall be approved make.

15.7 Two fog lamps of approved make shall be provided and fitted on front-bumper with controlling switch on dashboard.

15.8 New wiper motor assembly of 17 watts with new blades and arms shall be provided if not provided with the chassis. The locations of wiper motor shall be such that it shall be easily accessible for repairs.

15.9 Adjustable search light assembly shall be provided at a convenient position on the top of rear body deck with 30 mtrs Cable drum with Rexene cover.

15.10 Hooter cum P.A. system shall be provided with a speaker mounted on the top of Driver's cabin with Rexene cover. The output shall be 25 watts.

15.11 Adjustable spot light, mounted in a convenient position to give flood or beam of light at the rear of driver cabin shall be provided.

#### 16. PAINTING:

16.1 The complete structure material shall be treated for anti corrosion by ZINC PLATING. The plating thickness shall not be less than 20 microns. Two coats of Epoxy paints shall be applied to the completely welded structure.

16.2 The complete external and internal aluminum paneling of driver cum crew cabin and rear body shall be painted with two coats of Zinc Chromate paint.

16.3 The complete exterior of the vehicle shall be painted with two finish coats of "POST OFFICE RED" polyurethane paint manufactured by ICI Dulux / Nerolac / Dupont.

16.4 The internal painting of cabin lockers etc. shall be done with two coats of Grey Synthetic enamel paint made by ICI Dulux / Nerolac / Dupont.

16.5 The name of the fire service / organization shall be painted on both sides of vehicle in letter of suitable size in golden yellow paint with black colour shading.

16.6 The " EMBLEM" of the department shall be painted on both sides of vehicle in natural colours at suitable place.

#### 17. LADDAR WITH GALLOWS:

An aluminum extension ladder of Trussed type 10.5 mtrs in length shall be provided with the vehicle and mounted on suitable ladder gallows.

The design of the gallows shall be such that the ladder can be released without difficulty from a reasonably accessible position. Means shall be provided for locking the ladder when stowed.

#### 18. B.A. SET BRACKETS:

B.A. set brackets for fixing with its fittings shall be provided just behind the crew seat. The mounting of B.A. set bracket shall be such that, it can allow fireman to wear B.A set while vehicle is approaching to fire call. Proper padding and harnessing arrangement shall be made in the bracket to avoid damages to the critical parts of the B.A. set.

#### 19. ACCESSORIES:

The following accessories shall be provided.

19.1 Fire Bell: (Bell Carillon) : One Gun metal fire bells of 250 mm size confirming to IS 1928 of 1984 shall be mounted externally on the top of crew compartment and shall be operated within the crew compartment by firemen in seating position.

- |  |   |   |
|--|---|---|
| a) Suction Hose 4" dia X 10 ft. length | - | 4 lengths fitted with threaded couplings. |
| b) RR Delivery Hose 63 mm dia (2 ½ " ) |   |   |
| 22.5 m in length                       |   | 10 lengths each                           |
| b) Metal strainer 4 inch dia (100 mm)  |   | 1 No.                                     |
| c) Basket strainer                     |   | 1 No.                                     |
| d) Suction wrenches                    |   | 1 pair.                                   |

Tool Box with Tools for running repairs:

- |   |   |                          |
|---|---|--------------------------|
| a) D.E. spanners, 6mm to 26mm -   |   | 1 (one) set of 12 pieces |
| b) Screw drivers 12" -  |   | 1 No.                    |
| c) Combination pliers 8"  |   | 1 No.                    |
| d) Jack with handle   |   | 1 No.                    |
| e) Wheel wrench   |   | 1 No.                    |
| d) Slide wrench 12"   |   | 1 No.                    |
| e) Electric siren (Heavy Duty 'KHERAJ' MAKE) .  | - | 1 No.                    |
| f) Powerful fog lamps fitted with 55 watts Halogen bulbs.                                     | - | 2 Nos.                   |
| g) Powerful reversing light with 25 watts Halogen bulb. -                                     |   | 1 No.                    |
| h) Revolving amber coloured blinker lights (like VIP lights)                                  | - | 2 Nos.                   |
| mounted on each side on top of the driver's cabin.  |   |                          |
| i) Inspection lamp  | - | 1 No.                    |
| j) P. A. System in Driver's Cabin   | - | 1 No.                    |
| k) Six aluminum hooks for keeping the uniform clothing shall be provided in crew compartment. |   |                          |

20. WIRELESS SET BOX:

Box made from 2 mm gauge aluminum sheet with lid shall be provided just behind the officer seat with 13 mm wooden plank for fitting the wireless set bracket. The design and mounting will be shown at the time of fabrication work.

21. WORKMANSHIP & FINISH: The GVW of appliance will not cross the GVW of chassis manufacturer's specification with all equipments & Crew. The entire appliance will be painted fire red on the outside. The service letter will be written on both-side MEGHALAYA FIRE & EMERGENCY SERVICE" with yellow colour. Before final painting of Fire Tender two coats of anti corrosion and primer coat will be applied.

The appliance will clearly have the following markings at suitable locations.

- Manufacturer name and Trade mark
- Engine and Chassis No.
- Pump No. and capacity of the pump.
- Capacity of water tank, Foam tank
- All instruments control will be identified with nameplates

22. ACCEPTANCE TESTS: The following acceptance test will be given to the complete satisfaction of the user. The design of vehicle will be such that it will not affect the Chassis Characteristic as specified by the chassis manufacturer such as speed, turning circle, acceleration, braking distance etc.

The stability of the appliance will be such that when under fully equipped & laden condition, if the surface on which the appliance stands is tilted to either side, the point at which over turning occurs is



not passed at an angle of  $27^{\circ}$  from horizontal. This test should be carried out at the vendor factory in front of all the inspecting officers.

- i) The pump with its all fitments will be subjected to Hydrostatic testing on a pressure of 21 Kgs./cm<sup>2</sup>
- ii) The pump shall be run by dry for a period of minimum two minutes at 2000 RPM to check the integrity of mechanical carbon seal. After this test there shall not be any leakage of water through carbon seal.
- iii) The pump will be subjected to Endurance test for period of FOUR hours continuous running. The first Three hours the pump shall deliver rated out put of 2000 LPM at 8 Kg/cm<sup>2</sup> and next one hour will be 300 LPM at 35 Kg/cm<sup>2</sup>.
- iv) During the endurance test the water shall not be replenished in the cooling system and the temperature of the cooling water and engine oil should not exceed the manufacturers standards recommendations for the continuous operation and engine should not show any sign of stresses.
- v) The other tests shall be as per detailed performance parameters given for chassis, superstructure, fire fighting system which include monitor out put & throw, foam induction & expansion, load etc. Accessories shall also be subjected to relevant tests as per the specification indicated above.

TECHNICAL SPECIFICATION FOR MINI WATER TENDER BASED ON WATER MIST TECHNOLOGY TO BE FABRICATED ON A SMALL COMMERCIAL PICK UP TYPE VEHICLE HAVING A PAYLOAD OF MINIMUM ONE TON CAPACITY.

- 1.1 The specification covers the requirements of design, manufacture, testing, supply of MINI WATER TENDER BASED ON WATER MIST TECHNOLOGY – 350 LTRS CAPACITY mounted on a prime mover 207 DI Pick up Chassis which will be supplied by the department.

## Water Mist Fire Fighting System

2.1.1 The water mist fire fighting system shall have a filling volume of 300 liters of Water and 50 liters of Foam, (total 350 liters maximum). It should be designed to be mounted on most standard pickups and other small vehicles. It should have minimal requirements of space and weight while optimizing on manpower requirement and minimizing the water and other collateral damage to negligible in comparison to conventional water tender. The Unit design shall incorporate foam induction system which provides variable foam dosing and suction of water from an external source for direct fire fighting or filling of the tank.

### 2.1.2 Specification/Details of the Unit.

Weight of empty 300 liters. Unit.....<150 kgs. (Max)  
 Max. Measurements of the unit (in mm).....As compact as possible  
 Useable Water capacity..... 300 liters.  
 Useable Foam capacity.....50 liters.  
 No. of deliveries..... 2 Nos.

### 2.1.3 Main Extinguishing Gun

Flow rate.....	22 liters/min (+-5%)
Weight of extinguisher gun.....	2 kgs Max.
Gun Dimensions.....	As compact as possible.
Working pressure on the nozzle:.....	100 bars Max. with nominal reaction.
Throw .....	Jet - not less than 15 meters. (+/-10%)
	Spray: not less than 6 m (+/- 10%)
Hose reel.....	60 meters (standard) on manual drum
Max.set operating pressure.....	100 bars
Starter.....	Electric starter with provision of
	Pull cord over – ride
Level Indicator.....	Mechanical

### 3. Main Pump

The pump should be capable of suction of water from tank or open source and to maintain adequate discharge rate and pressure for operation of nozzle at optimum efficiency

Max. Pressure.....	100 Bars
Min. flow.....	38l/mn
Power of the engine.....	Not less than 13 BHP
Fuel.....	Unleaded Petrol

## 4. ENGINE

- 4.1 The prime mover for pump shall be 4-stroke Petrol driven engine and shall have compatible electrical and lubrication system. The engine should preferably be on 12V battery for which

adequate charger shall also be provided. Suitable electronic instruments shall be provided on the body of engine / panel for fuel level, battery and temperature.

5. Foam Induction

A suitable means shall be provided for induction of foam from tank so that proportion for single or double delivery remains constant and foam quality is maintained.

Size of foam tank -50 liters (Min). (included in the water tank and rested from the water tank which will remain with 300 liters).

Max. induction - 6 % (From 0.5 to 6 adjustable)

6. Accessories

Electric starter (Enabling the Unit to be Electrically started) 1

Additional hose length of 30 meters. with drum

Aqueous film forming foam (AFFF) 50 liters filled in the foam tank and 50 liters spare)

- Tool K Comprising of 1 no adjustable spanner 12", 1 no. cutting pliers, 1 set of flat spanners, 1 set of adjustable screw driver, 1 set of suction key and other special tools as per the requirement of the unit.

8. DESIGN & DEVELOPMENT:

8.1 Equipment details

8.2 The Water Mist Fire Fighting System will be a self driven fire fighting unit operated with in built Petrol Engine coupled to a pump and attached with a reducer & hose pipes, Mist generating Guns.

8.3 The water mist system shall be capable of carrying 300 liters of water and Foam tank of 50 made of GRP shape T ( in order to reduce the gravity centre of the vehicle) and for AFFF a separate system to pump and mix the required ratio, which can be discharged in the form of a mist from a gun.

8.4 The discharge gun shall be of light weight having stainless steel nozzle capable of producing Water Mist with the ability to control the discharge in short burst and long shots.

8.5 The size of mist particle shall be in the range of 150 to 300 microns.

8.6 A suitable pressure reducer with a safety valve, capable of reducing to a low pressure not more than 100 bars & jerk free working pressure shall be incorporated.  
The main vessel shall be corrosion free.

8.7 The foam required shall be aqueous film forming foam (AFFF).

8.8 The unit shall have adequate provisions for safety of the system.

9. SAFETY DEVICES

9.1 The following safety devices shall form part of equipment.

I) The system shall be provided with pressure safety valve.

II) The system will have proper heat & exhaust outlet for the engine without causing any interference to the operator while operating the unit.

III) Any other safety device which is felt to be necessary to be a part of the equipment.

11. MAIN WATER TANK

11.1 The water tank shall be made of GRP giving a free corrosion for life and a light weight of the WATER MIST SYSTEM, having usable water storage capacity of 350 liters (300 for water and 50 liters capacity for foam) properly baffled into segments to reduce water surge. The water tank shall be T shape and thickness of the water tank should of 5 mm Minimum, a Manhole of 330 mm avec overflow pipe and an optical level of water should be part of the tank. The tank should resist to the flame and be anti ignition complying with the international standards.

12. GUN

The Gun shall be provided with a suitable stainless steel filter. The discharge rate of main gun shall not be less than 20 liters per minute at pressure not exceeding 100 bars. The second gun should have a flow rate not exceeding 20 LPM. The designed of the gun shall such that there is no appreciable recoil pressure and the throw shall not be less than 15 meters (Jet mode) and shall not be less than 6 meters (Spray mode). The second gun shall have an attachment for discharging foam with suitable aeration facility.

13. HOSES

13.1 The hoses provided in the system shall be high quality and shall be capable of holding the temperature ranges from – 20 degree to + 55 degree centigrade. The material specification, working pressure, test pressure and cracking pressure should be indicated for each type of hoses. The minimum length of each hose should be 60 meters.

The seals and O rings use in the system should be of synthetic material like nitrile rubber or equivalent

14. MARKING

Marking shall gave details of capacity, manufacturers name, month/ year of manufacturing of the system etc.

OFFICE OF THE SUPERINTENDENT OF POLICE (FIRE & EMERGENCY SERVICE)  
MEGHALAYA, SHILLONG.

Shillong, the 13<sup>th</sup> June, 2011.

NOTICE INVITING TENDER

**No.MFS/A-35/CS/2009-11/65/2928.-** Sealed Tenders are invited for entering into rate contract for supply of Fire-Fighting Equipments for Meghalaya Fire & Emergency Service during the financial year 2011-12. Sealed Tenders will be received upto **1200 Hrs. on 11<sup>th</sup> July, 2011** in the office of the undersigned and will be opened on the said date at **1300 Hrs.** by a Tender Opening Committee. Tenderers or their authorized representatives are invited at the time of opening the Tenders. Tenders received after 1200 Hrs. by hand or by post will be summarily rejected.

TERMS & CONDITIONS:-

1. Tenders must be accompanied by the following: -
  - a. Affix non-refundable Court Fee Stamp of ₹ 300 (Rupees three hundred) only.
  - b. Earnest Money for ₹ 28,000/- (Rupees twenty eight thousand) only in any of the following form: -
    - (i) Deposit at Call.
    - (ii) Fixed Deposit.
    - (iii) NSC/KVP.

Pledged in favour of the Superintendent of Police,(F&ES) Meghalaya, Shillong from any Nationalised bank at Shillong.

For Tenderers belonging to Scheduled Tribes/Castes only 50% (fifty percent) of the earnest Money mentioned above may be deposited, Earnest Money and papers available in the office in connection with any earlier Tenders/Supplies will not be considered as valid Earnest Money for this Tender.
  - c. Attested copy of V.A.T. Clearance Certificate & V.A.T. Registration Certificate with Firefighting Equipments as one of the registered listed item.
  - d. Financial stability certificate from a Scheduled Bank certifying that the Tenderer is financially sound to undertake the contract.
  - e. Attested copy of Scheduled Tribes/Castes Certificate in case of ST/SC tenderers.
  - f. Attested copy of valid Trading Licence in terms of the United Khasi & Jaintia Hills and Garo Hills (Trading by Non-Tribal) Regulation, 1954 for tenderers as amended from time to time who are required to obtain such a licence.
  - g. Authenticated copy of authorised dealership Certificate from the Manufacturers or Principals who has authorised dealers specifically certifying that the tenderer is authorized to deal with fire fighting equipments quoted in the tender notice. Separate Dealership Certificate will be required to be furnished by the tenderer if asked for in the list of items.
  - h. Authenticated copy of rate contract with D.G.S.&D. if the Tenderer or his/her Principals/Distributors have existing and valid rate contract with D.G.S.&D.
  - i. Attested copy recent Passport size photograph of the Tenderers should be attached to the tender.
  - j. Sample will be required to be submitted if asked for in the list of items. A list indicating name of the samples submitted by the tenderer should also be enclosed.

All documents above from Sl. 1 (c) to 1 (j) should be duly attested by a G.O.
2. Rates should be: -
  - a. Quoted separately for each item and in words and rates should be for 1 (one) item 1 (one) rate. Same items with optional rates and optional quality will not be entertained and outrightly rejected.
  - b. Quoted F. O. R. destination, Shillong. Door delivery at Provincial Stores (Fire & Emergency Service), Nongthymmai, Shillong.

- c. Inclusive of all charges like custom duty, packing, insurance and other incidental charges. Only Value Added Tax should be shown and calculated separately for each item.
- d. Written clearly in figures and in words. Any correction or overwriting in the tender papers/documents will be rejected.
- e. No enhancement of rate will be allowed once it is agreed to supply the items at the rates accepted by the Department. Failure to supply the items at the accepted rate will entail the offer being cancelled and the Security Money forfeited to the Govt. of Meghalaya.
3. An undertaking should be submitted by the tenderer before opening of the sealed tender stating that he/she is satisfied with the terms & condition of the N.I.T. and agree to abide by the same. In case of failure to submit the undertaking, the sealed tender of the particular firm will not be opened and will be returned back accordingly.
4. Tenders should be addressed to the undersigned by designation and not by name. The words "Tender for supply of fire fighting equipments" must be superscribed on the sealed envelope containing the Tender and the firm's seal should be stamped on the body of envelop. The Tender should be sent by registered post or delivered by hand.
5. The tenderer or their representatives/agents must be present during the tender opening alongwith their firm's seal and authority letter in case of representatives/agents. Whatever objection is to be raised should be done during the Tender Opening Proceeding. Raising objection after the completion of tender opening proceeding will be treated as null & void and the undersigned is not bound to entertain such objections.
6. If at the time of opening of tender, should there be any objection raised by the majority of the tenderer/representatives present as to validity of the tender, the objection will be duly examined by the Tender Opening Committee whose decision on such objection will be final and binding and tenderer will have no right to raise objection on the decision of the Tender Opening Committee.
7. Tenders without furnishing all the required papers/documents will automatically stand rejected.
8. Successful tenderer/tenderers will: -
  - i) be intimated by a letter of acceptance, till then, no tenderer has any right to assume that his/her tender has been accepted. There shall be no claim whatsoever for compensation for any expenditure incurred by any tenderers in anticipation of acceptance letter.
  - ii) have to submit Proforma Bill as and when called for and should comply with the requisition at any cost. Failing to comply with any of the demand/requisition made by the undersigned will invite forfeiture of Earnest Money.
  - (ii) be required to furnish a security deposit at the rates mentioned below and execute a contract agreement to ensure fulfillment of the terms and conditions of the N.I.T. and contract agreement, which the successful tenderer (s) will have to enter into. Security Deposit will be subjected to forfeiture in case of non-fulfillment of any or all terms and conditions of the Contract Agreement. The earnest money of the successful tenderer (s) will not be released till they furnish the full security deposit. Earnest Money of the successful tenderer (s) will be forfeited to the Government in case of failure to furnish the security deposit in full.
9. Rate of Security Deposit: -

For contract upto Rs. 10.000/- 2% from locals and 3% from non-locals.  
For contract upto Rs. 50.000/- 3% from locals and 4% from non-locals.  
For contract over Rs. 50.000/- 10% of the total amount.  
Scheduled Caste/Tribes may deposit only 50% of the Security Deposit mentioned above.
10. The undersigned may rescind forthwith the contract in writing if,
  - a) A Tenderer assigns or sublets any contract in respect of the contract or any other contract entered into with the Govt.
  - b) Tenderer or his agent/servant are found guilty of fraud in respect of this contract or any other contract.
  - c) Declines, neglects or delays to comply with the demand/requisition or in any other way fails to perform or observe any or all the conditions of the contract agreement.

In case of such rescission, the security deposit in full shall stand forfeited and absolutely be at the disposal of the Govt. without prejudice to any other remedy or action that the Govt. shall be entitled to take to recover from the successful tenderer (s) any extra expenses Govt. may deem necessary in obtaining the supplies from elsewhere.

11. In the event of the successful tenderer (s) failing to perform his/her part of any or all the conditions of the Contract to the satisfaction of the department or disregarding any terms and conditions of this tender notice or the Contract agreement, the successful tenderer (s) will be liable to any or all of the following actions at the discretion of the Superintendent of Police, (F&ES), Meghalaya, Shillong.
  - (i) Forfeiture of the security deposit in whole or part.
  - (ii) Making good the loss caused to the Government through the liabilities, neglect or delay in complying with the demand.
  - (iii) Cancellation of the contract without any prior notice.
12. If the successful tenderer (s) willfully neglect, fails to perform or observe any or all conditions of the contract agreement or Tender Notice or attempts to cheat or indulge in foul practices, the Department may impose a ban upon such tenderer (s) for future business with the Department.
13. Items mentioned in the list are only illustrative and may be omitted from the list of items to be purchased on finalization of order depending upon availability of fund.
14. The samples if asked for in the list of items are approved, no change of brand, shape, patterns, quality or specification will be entertained even on the plea of non-availability of raw material or alternative to the same quality.
15. The stores supplied must be of the same specification, weight and quality as the tendered samples. The successful tenderers will have to furnish the counter samples if required within 2 (two) weeks of receipt of information regarding acceptance of their tender. Failure to submit the counter sample in time as per specification of the approved sample will entail cancellation of the offer and forfeiture of earnest money/security deposit.
16. Delivery must be completed within 60 (sixty) days from the date of receipt of Supply Order. No extension of delivery period will be entertained.
17. Payment will be made to the supplier directly only on completion of supplies and on correct receipt of the goods by the consignee in good condition. Documents/Vouchers/R.R. bills etc. routed through Banks will not be accepted. Consignment will be dispatched by the Firm after payment of all freight charges at source. R.R. of freight will not be accepted.
18. Risk of transportation will be borne by the successful tenderers themselves.
19. Warranty period of the equipments should be indicated along with Sales Service facilities.
20. A list of all documents that are attached to the tender should be noted on the body of the envelope containing the tender.
21. The acceptance or rejection of the tender rests finally with the undersigned and reserves the right of rejecting any tender or any item in the tender without assigning any reason thereof.
22. The undersigned reserves to himself the right to reject any or all tenders without prior notice nor assigning any reason thereof.
23. Samples of the unsuccessful tenderers if any, should be collected within 15 (fifteen) days after finalization by the purchase board. The undersigned is not responsible for the safe custody of the samples.
24. Firm/Supplier concerned is to furnish their address/contact telephone no. etc.
25. The Authority is not bound to accept the lowest tendered rates.

Superintendent of Police, (F&ES),  
Meghalaya, Shillong.

TECHNICAL SPECIFICATION FOR HYDRAULIC SELF CONTAINED COMBINATION TOOL

The Rescue tool shall be designed for spreading, cutting, during Rescue Operation.

1. The Rescue tool shall be self contained device with integrated hand pump.
2. It shall be hydraulically operated, light weight and capable of being operated by one person.
3. The operating system shall have the best agronomy of functioning. The Tool Head or the handle shall be rotatable at 180 degree in any direction. It should have a self locking or manual locking system.
4. The Rescue tool shall be independent from any outside power source and be operated only by a hand lever integrated in the tool itself. The operation shall be extremely user friendly possible by the same person who holds the tool.
5. The Head or the handle of the rescue tool should rotate 180 degree and should be locked in any desired position.
6. Minimum spreading force at the tips in closed position shall not be less than 2.5 tons. Maximum spreading force shall not be less than 12 tons.
7. Spreading distance at the tips shall not be less than 255 mm.
8. Cutting capacity in the recess shall be able to cut 21 mm steel bars.
9. The maximum cutting force shall not be less than 200 KN
10. Weight of ready to use unit with shoulder strap should not be more than 12 kg.
11. The blades shall be of impact free cutting design to overcome the flying of metal pieces during cutting process.
12. The blades shall be able to bite firmly into the work piece and resist any tendency for it to slide forward under the cutting action.
13. The blades of the tool shall be made of drop forged tooling steel and must be one piece without loose parts.
14. The tips of the blade arms must be serrated inside and outside for firm grip during spreading or squeezing.
15. The tool shall be capable of working under extreme conditions, high dusty environment, high humidity and a temperature range from – 15Deg C to + 70 Deg C. The tool shall be capable of working also in under water conditions up to a depth of approx 40mtr.
16. Dealership Certificate from the manufacturer/ Principal along with the Test Certificates, Catalogue & Literatures should be furnished.